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1876

THE BATTLE *of the* LITTLE BIGHORN

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Sehestedt, 1813

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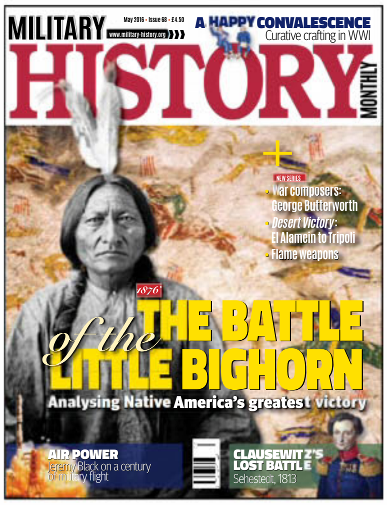
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ON THE COVER: Chief Sitting Bull. The background is a Native American deer-hide painting depicting the Battle of the Little Bighorn.

Battle image: Alamy

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Little Bighorn may be the most popularised battle in history. It is probably the subject of more films and documentaries than any other. The character of its most-famous protagonist – George Armstrong Custer – and the sequence of events that led to the destruction of his command on 25 June 1876 have been debated for 140 years.

Why the fascination? One reason, surely, is that most battles of the colonial era were little more than one-sided slaughter. As such, they lack both drama and interest. The essential ingredient of uncertain outcome is missing. Is this not why we remember Isandlwana better than Ulundi, Maiwand better than Kandahar.

Little Bighorn is, of course, the battle the Indians won. The tragic record of ethnic-cleansing – for such it was – by which the American West was cleared of indigenous people to make way for white settlers was, for a moment, reversed. The underdog fought back and triumphed.

Perhaps, too, there is satisfaction in the fate of Custer, who seems to have been a man of exceptional arrogance, callousness, and ambition, wholly without redeeming moral qualities. He had it coming, we feel.

US military historian Fred Chiaventone tells the story of the Little Bighorn in this issue, while Jeremy Black analyses a century of air power, Donald Stoker reveals Clausewitz at war, David Porter begins a two-parter on incendiary weapons, and Patrick Mercer continues our regiment series by recalling the epic resistance of the Royal Berkshires at Anzio.

Neil Faulkner.

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and have your say

CONTRIBUTORS THIS MONTH'S EXPERTS

JEREMY BLACK is Professor of History at the University of Exeter. His books include *Rethinking Military History, Naval Power: a history of warfare and the sea from 1500*, and *War and Technology.*

FREDERICK CHIAVENTONE is an author, historian, retired cavalry officer, and Professor Emeritus for International Security Affairs at US Army Command and General Staff College.

DAVID PORTER worked at the Ministry of Defence for 30 years, and is the author of nine of Second World War books, as well as numerous magazine articles.

DONALD STOKER is Professor of Strategy and Policy in the Naval Postgraduate School in Monterey, California. The most recent of his seven books is *Clausewitz: his life and work.*

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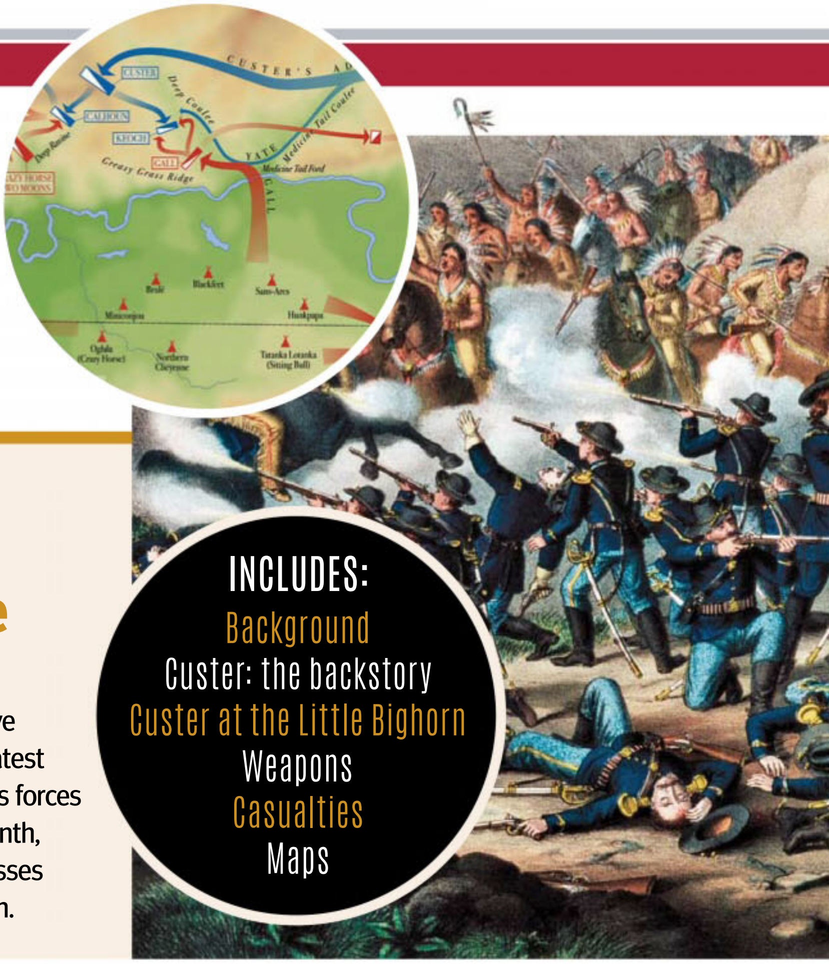

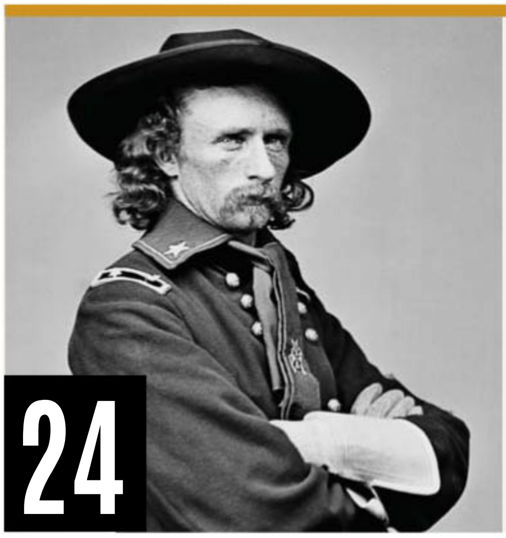

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The Battle of the Little Bighorn

It is 140 years since Native Americans won their greatest victory over United States forces on 25 June 1876. This month, Fred Chiaventone reassesses this most famous collision.

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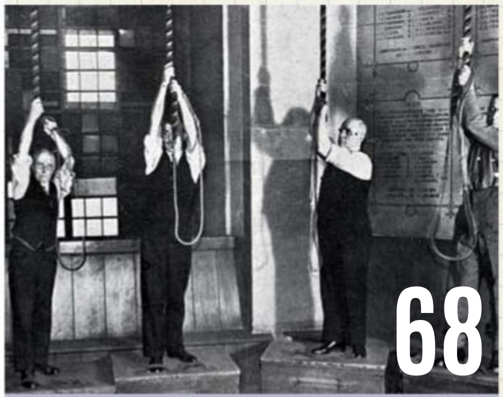

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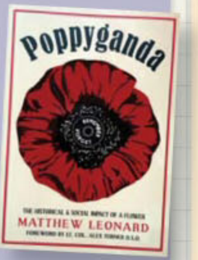

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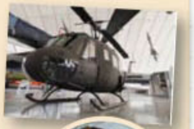

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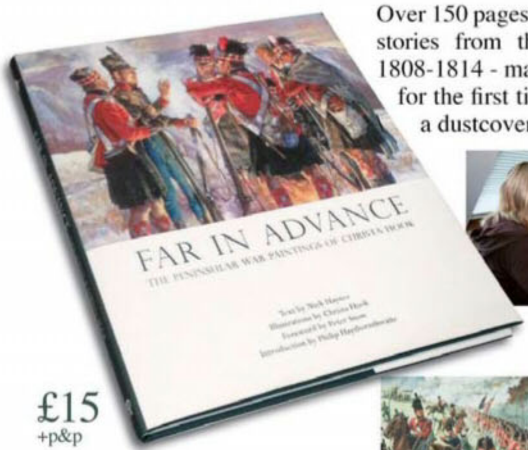

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Roger Bragger

*12.15 Cross & Cockade International AGM *(Society Members only)**

14.00-15.00 Lawrence and the Red Sea Patrol
John Johnson-Allen

15.30-16.30 T.E. Lawrence's Life and 'Unusual Genius'
Philip Neale (Chair, T.E. Lawrence Society)

18.00 RAF Museum closes

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LETTER OF THE MONTH

CONVERSATIONS WITH SPEER

I was intrigued to read the review of *Speer: Hitler's Architect* in the March issue (*MHM* 66). This appears to be yet another book that focuses on Speer's knowledge, or otherwise, of the use of Jews in his factories and his role as a committed Nazi, utterly loyal to Hitler.

I joined the army aged 16 as a private with the Royal Sussex Regiment (no one ever asked me how old I was!). A few days after my 18th birthday, I was commissioned as a second lieutenant and posted to the Welch Regiment in Berlin, where I met Speer in Berlin's Spandau Prison in 1961.

Over a period of nearly three years, I spent many hours chatting with him in the prison garden at Spandau. I amused him at an early stage by practising my school German with him; he kindly offered to teach me Hoch Deutsch, which I accepted, and under his tutorage I mastered the language and went on to become an interpreter.

I learned much from him about his rise to power and his time as Hitler's minister. He, like every young German, was swept along with the Nazi system, which controlled the media, schools, academia – in fact, everything. Due to his brilliance, he soon found himself in a high place.

Speer never hid from me his knowledge of the fate of the Jews – nor that he used them in his factories. He always maintained that the Jews in his factories were better accommodated and fed; he understood that meeting targets depended largely on a healthy workforce. To have argued with anyone about his role would have resulted in his arrest, and that of his family and work colleagues – not an easy seat to occupy.

Kitchen states Speer kept his enormous fortune. Not as far as I know, nor has this been alleged before. He certainly inherited his father's house, which his wife and six children lived in during his 20 years in Spandau Prison.

Perhaps the most fascinating snippet I gleaned from Speer during our conversations was his admission of a long-standing relationship with Eva Braun.

He knew her for some ten years, and Eva often accompanied the Speer family on holiday – to the annoyance of Frau Speer, who was aware that her husband spent many long weekends at Berchtesgarten, often in the company of Eva, when Hitler was otherwise engaged with his generals.

Speer admitted to me that his dangerous flight to Berlin, ostensibly to see Hitler at the bunker just before the Russians took Berlin, was not to say farewell to Hitler, as historians have speculated, but to try to collect Eva and fly her to safety.

Adrian Greaves, *Tenterden, Kent*

EASTER RISING

Issue 67 is excellent. Whilst I always read *MHM* cover to cover, this issue had my attention on every page.

I particularly enjoyed the articles on Ireland. Not only is my wife Irish, but my Dad's dad, rather than being posted to the Western Front, ended up being posted to Ireland in 1916/17. I read somewhere that the Easter Rising actually saved the lives of British soldiers who might else have been sent to Flanders.

David Flintham, *Chadwell Heath*

WHAT IS HISTORY?

I write with dismay and outrage at Chris Bambery's and Neil Faulkner's articles on the Easter Rising and the Kilmichael Ambush (*MHM* 67). These are so biased and historically inaccurate that they do not deserve to be called 'history' in any sense of the word.

I will limit my points to the two most salient. Firstly, it was a curious 'victory' won by the IRA when the terms of the resulting Anglo-Irish Treaty were acceptable to Irish Unionists and the British Government, but plunged Irish Republicans into a vicious civil war with one another.

Secondly, the Kilmichael Ambush actually illustrates the failure of the IRA, its crowning achievement being the successful ambush of what would not even constitute an under-strength platoon by a force three times its size. It certainly pales in comparison with the sweeping victory of the British over the IRA at the Dublin Customs House.

Patrick Walker, *email*

Please note: letters may be edited for length; views expressed here are those of our readers, and do not necessarily reflect those of the magazine.

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1 Mar 2016
At the Battle of Britain Memorial Flight centre in Lincs. Some fascinating work going on with these old warbirds!

@MilHistMonthly
7 Mar 2016
***#OnThisDay* in 1814, Napoleon defeated Russians and Prussians at the Battle of Craonne.**

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14 Mar 2016
Spitfire funds: The 'whip-round' that won the war? *http://www.bbc.co.uk/news/uk-england-35697546 #Spitfire80*

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8 Mar 2016
It's *#InternationalWomensDay* and 80 years this month since the Spitfire's first flight. What better way to mark this than to read the story of Leading Aircraftwoman Margaret Horton, a WAAF mechanic who flew a circuit on a Spitfire in February 1945! *#IWD*

16 Mar 2016
If you haven't already, head down to the Imperial War Museum London for Nick Danziger's powerful exhibition 'Eleven Women Facing War'. *http://www.military-history.org/articles/nick-danziger-eleven-women-facing-war.htm*

17 Mar 2016
In case you missed it last night: 'Brendan O'Carroll: My Family at War' *#Easter Rising #iPlayer http://www.bbc.co.uk/iplayer/episode/b074719c/brendan-ocarroll-my-family-at-war*

NOTES FROM THE FRONTLINE

Our round-up of this month's military history news

TOMMIES IN THE TRENCHES

ABOVE Professor Richard Grayson.

First World War British soldiers spent the majority of their time away from the trenches, according to new research published by Professor Richard Grayson of Goldsmiths, University of London.

Using metadata from digitised war diaries, researchers found that Western Front infantry spent no more than 47% of their time at the front or fighting, and that they engaged with the enemy directly on just one day out of every five on average.

Artillery soldiers spent 62% of their time either at the front or fighting, while for the cavalry this figure was just 20%.

The diaries analysed come from the six original British Expeditionary Force infantry divisions and the first two cavalry divisions to arrive in France. But Professor Grayson said these percentages are likely to be maximum figures, as diaries are less detailed about soldiers' training and 'time off'.

Asked about soldiers' activities away from the trenches, Professor Grayson told *MHM*, 'At key stages of the war they would have been moving from one part of France or Belgium to another, and as the war progressed an increasing amount of time was spent training. However, throughout the war, there was much time spent resting or taking part in activities such as parades.'

He also stated, however, that 'Even with less than half your time spent at the front and around one out of five days actually under fire, nobody should doubt that conditions were horrendous.

'But our research shows that popular representations of soldiers spending all day and night in the trenches – whether it's in *Blackadder*, on the BBC Schools pages, or in popular histories and broadcasts – do not properly represent the broad pattern of the daily lives of soldiers.'

The research used data from the first stage of Operation War Diary, a history crowdsourcing project led by the National Archives, Imperial War Museums, and academic crowdsourcing research group, Zooniverse. Professor Grayson said, 'It is also worth noting that these average figures mask some remarkably lengthy periods at the front by some units. For example, among the battalions examined so far in OWD, the 1st East Lancashires were almost solidly in the line between 21 October 1914 and 11 April 1915.'

Mystery of the Verdun oaks

ABOVE LEFT Grange Park, Leominster. **ABOVE RIGHT** Spencer Park, Coventry.

The Woodland Trust has appealed to the public for help locating Verdun oaks – trees planted as memorials to soldiers killed in WWI. The charity hopes to collect their acorns to grow a second generation of Verdun oaks in its First World War Centenary Woods.

Fought between French and German forces, Verdun spanned 302 days. It was the longest battle of the war, and led to the deaths of around 400,000 men.

Acorns from the battlefields were collected after the conflict's end. These were taken to Britain, where they were planted as a lasting memorial to all those who fought and died in WWI.

Extracts from contemporary newspapers and magazines suggest the trend was started by Field-Marshal Sir John French, a Boer War veteran who led the British into northern Europe in 1914. He took a handful of seeds to commemorate the stand the French had made at Verdun.

It is also known that the Mayor of Verdun sent a box of acorns and chestnuts to the London and North West Railway Company in 1917, to be sold for the benefit of the War Seal Foundation.

But only a few of these trees have been found. One of the most notable is the Queen Mary Oak, which was planted, along with several others, by Queen Mary in the grounds of the Sandringham Estate in 1920.

Others survive in the Royal Botanic Gardens in Kew, Coventry, Staffordshire, Suffolk, and Herefordshire. Researchers have found passing references to trees planted in Ealing, Whitehaven, and Swansea, but these have yet to be identified.

Philippa Borrill, the Woodland Trust's Centenary Woods project manager, said, 'There is a real element of mystery to this story, as there is limited commentary on how many were planted and where, and why the oaks came to be planted in the sites we have found. It's a mystery we would love to solve.'

Photos: Dave Warren/WTML

Jacobite finds at Killiecrankie

Images: © GUARD Archaeology Ltd

A recent metal-detecting survey has revealed new evidence for the location of the Battle of Killiecrankie, fought on 27 July 1689 between the Government army of William of Orange and Jacobite forces lead by Graham of Claverhouse, also known as 'Bonnie Dundee'. Although the latter was killed in the battle, his 2,500 Jacobites secured a surprising victory against some 4,000 Redcoats.

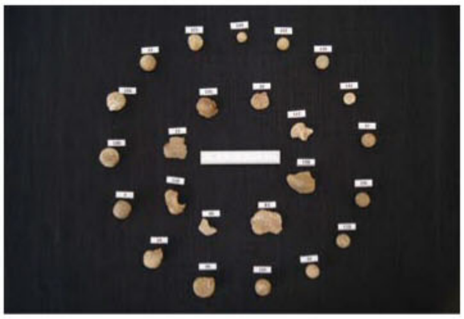
One of Scotland's best-preserved battlefields, the site of the 300-year-old conflict lies in modern-day Perthshire. The survey was carried out amid plans to upgrade sections of the A9.

GUARD Archaeology Project Officer Maureen Kilpatrick, who led the survey, said, 'The rout of Government troops which followed is particularly remembered due to one Government soldier making the "soldiers leap" across the River Garry.' The site of his crossing continues to be visited by tourists and ramblers today.

Significant finds include musket and pistol balls (shown below), copper-alloy buttons, buckles, horseshoes, a copper-alloy harness boss, and part of the support for a sword belt.

The earliest recorded hand-grenade found on British soil was discovered at Killiecrankie Battlefield in 2004. Though thrown by a Redcoat, it is thought to have exploded among them, contributing to their defeat.

The locations of the most recent finds have helped researchers to map the development of the battle by revealing its widespread nature, while highlighting key areas of intense fighting.



CAPE FEAR RIVER WRECK DISCOVERED

Images: North Carolina Department of Natural and Cultural Resources

The wreck of an American Civil War blockade-runner has been located 60km downstream from Wilmington at the mouth of the Cape Fear River in North Carolina.

Underwater archaeologists, with researchers from the North Carolina Office of State and the Institute of International Maritime Research, made the discovery during sonar operations. The wreck is likely to be one of the Confederate blockade-runners used to penetrate the Union's naval blockade of the South between 1861 and 1865 (see *MHM* 65).

Historical, cartographic, and archaeological sources have been examined over the past two years to facilitate better understanding of the maritime aspects of the Fort Fisher campaign, during which fortifications at the river's entrance, and the nimble speed of the blockade-runners, were crucial lifelines for the Confederacy.

Three blockade-runners are known to have been lost in the area: the *Agnes E Fry*, *Spunkie*, and *Georgianna McCaw*. Billy Ray Morris, director of the Underwater Archaeology Branch of the Office of State Archaeology, said, 'The extant remains are 225ft long, both engines and the paddlewheel are missing, and at least one boiler is still in its bed, and the stern of the vessel points toward the beach.'

But a detail not apparent on the sonar reading is the vessel's framing pattern, which Morris says is single iron frames on 18-inch centres. He said: 'All of this evidence, when viewed in light of the extensive historical documentation on hand, supports rather strongly our working hypothesis that this wreck is the *Agnes E Fry*.'

The discovery forms part of a major project funded by the National Park Service through the American Battlefield Protection Program.

GOT A STORY?
Let us know!

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NEWS IN BRIEF

Culloden skull in 3D

A skull fragment thought to belong to someone who died in the Battle of Culloden in 1746 has been recreated in 3D. The battle-scarred fragment features entry and exit wounds possibly caused by a musket ball.

Derek Alexander, Head of Archaeological Services for the National Trust for Scotland, said: 'We cannot say whether the skull fragment belongs to a Jacobite or one of the Government troops, but the injury to the top of the head could be interpreted in a number of different ways.

'It could be from someone, head down, looking at the ground as they charge forward, or an individual who has already been wounded and is on their hands and knees, or indeed it could be someone hit while focusing on reloading their musket.'

The skull can be viewed at *sketchfab.com/models/b12b6cfc8fdc4dc6859cbbce15ee90f6*

Footballs over the top

Surrey Sports Park in Guildford will host a unique football event on 1 July 2016 to commemorate the Battle of the Somme. During the battle, the East Surrey Regiment kicked footballs across no-man's land to encourage troops to advance.

'Over The Top' is being organised by the Princess of Wales' Royal Regiment, the Army Benevolent Fund, and the South East Reserve Forces' and Cadets' Association. Twenty teams will play together to mark the sacrifices made by local men from the south of England.

Civilian teams taking part include Aldershot Football Club, Guildford City, Chelsea, Southampton, Surrey Fire Brigade, and Hampshire Police. Military teams will join from Headley Court Rehabilitation Centre, Pirbright, Aldershot, Cyprus, and Germany. The event will run from 10am into the afternoon.

Hastings 'sequel' fought in 1069

Author Nick Arnold has identified the site of a Hastings 'rematch' fought after two sons of the slain King Harold launched a failed raid on Devon in 1069.

Having sailed from Ireland with around 60 ships, the brothers' forces were defeated by Normans, Bretons, and Englishmen in two battles fought in one day. Historians have debated the location of these events, but comparing a network of medieval sources with geographical, tide, and dusk data, Nick has suggested that the battlefield lies in a field between Appledore and Northam.

The Battlefields Trust Research Coordinator Simon Marsh said, 'the battles at Northam are important as they show the Norman conquest of England wasn't all plain sailing after 1066. Whilst not registered as one of the 46 nationally important battlefields, the battles are nonetheless significant. Nick has done an outstanding job to bring this to wider attention and the Battlefields Trust fully supports his desire to have the location of the battles designated as green-space land to enhance their protection.'

OUT OF THE RUBBLE

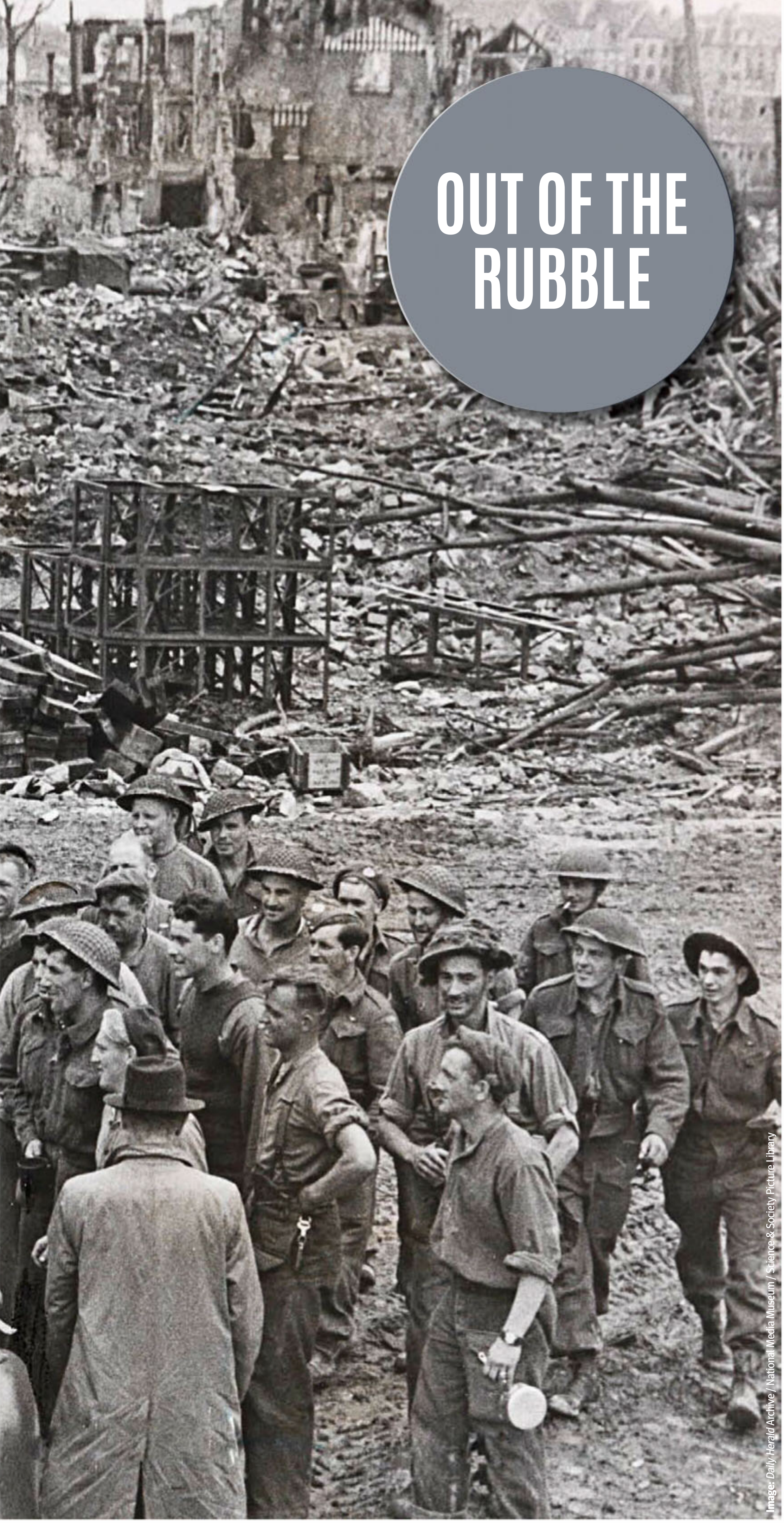


Image: *Daily Herald* Archive / National Media Museum / Science & Society Picture Library

CHURCHILL VISITS CAEN, JULY 1944

First published in the *Daily Herald* in 1944, this recently rediscovered photograph shows a scene of extreme contrasts. The panoramic background is almost filmic in its depiction of utter devastation, featuring splintered buildings, rubble, and the skeletons of burnt-out structures.

But standing in the foreground is a group of smiling soldiers. Looking exhausted, they are clustered around a Jeep containing the unmistakable figure of Winston Churchill. We see the great man only from behind, but his distinctive silhouette leaves us in no doubt as to his identity.

Shot in black and white, everything in the image – buildings, rubble, uniformed soldiers, and even Lieutenant-General Sir Miles Dempsey, commander of the Second Army – reflects the same shade of grey, except for the figure of Churchill himself, who appears as a recognisable hunk of black, wearing a dark coat and naval cap. As other pictures in the series show, there is almost certainly a cigar clamped between his fingers or lips.

Churchill travelled incessantly during the war. In this picture, taken in Caen around six weeks after the D-Day landings, we find him visiting troops in France for the second time since the beginning of Operation Overlord.

Although the initial Allied objective had been to take Caen on 6 June, directly after landing, the Germans threw their reserves into a series of fierce counterattacks in an effort to hold onto the capital of Lower Normandy, a key communications hub. The fighting to take the city therefore lasted well into July, during which time its architecture, including important medieval buildings, was reduced, by air attacks and ground fighting, to little more than battered fragments. As well as damage to the city's fabric, which took decades to repair, 2,000 French civilians were killed during the battle for Caen.

The war was still far from won, but this moment, captured on camera, makes the future look more hopeful than the recent past. •

Text: Maria Earle

WAR COMPOSERS

Tim Rayborn considers music and the experience of war

GEORGE BUTTERWORTH

George Butterworth was part of a group of young English composers who were making names for themselves during the Edwardian era. English classical music had languished since the 18th century, but by the 1880s there was a new movement that would produce such creative geniuses as Elgar, Vaughan Williams, and Holst.

AN ENGLISH RENAISSANCE

Many saw Butterworth as one of English music's great hopes. He was part of the second generation of composers in this new movement, at the time dubbed a 'renaissance', and like several of his colleagues he drew inspiration from English folk music and traditions. This renaissance was part of a larger 'romantic' movement to imbue society with a new sense of Englishness and a connection with the past.

Butterworth and several friends spent many happy days travelling the countryside, collecting folk songs from rural populations, and writing them down before they were lost forever. He was also an enthusiastic folk dancer, belonging to the famed troupe directed by noted song-collector Cecil Sharp.

Described as something of a 'gruff Yorkshireman' (although born in London, he was raised in the North), Butterworth came from a wealthy family but struggled to find a real purpose in life. His father, Sir Alexander Kaye Butterworth, initially opposed his decision to pursue a musical career, but eventually relented, and would later regret not giving him more support.

Butterworth showed tremendous compositional ability, and his few surviving orchestral works are of high quality. He was also a noted composer of songs for voice and piano. Alas, he was dissatisfied with much of his output, and destroyed many pieces before the outbreak of the war; he was still searching for his true calling.

PRIVATE BUTTERWORTH

After some soul-searching, Butterworth enlisted in late August 1914. He declined an offer from a family friend of a safe commission, not wanting to use his social position unfairly. Instead, he joined the Duke of Cornwall's Light Infantry as a private, and, eventually, went to Aldershot for training.

He remained there for the first half of 1915, which frustrated him. Though he eventually received a commission, and was later made a lieutenant in the Durham Light Infantry, he spent the first part of the war feeling restless and bored. Finally sent to France

> "I am not going into this business in a simple swelling mood of patriotism."
>
> **George Butterworth**

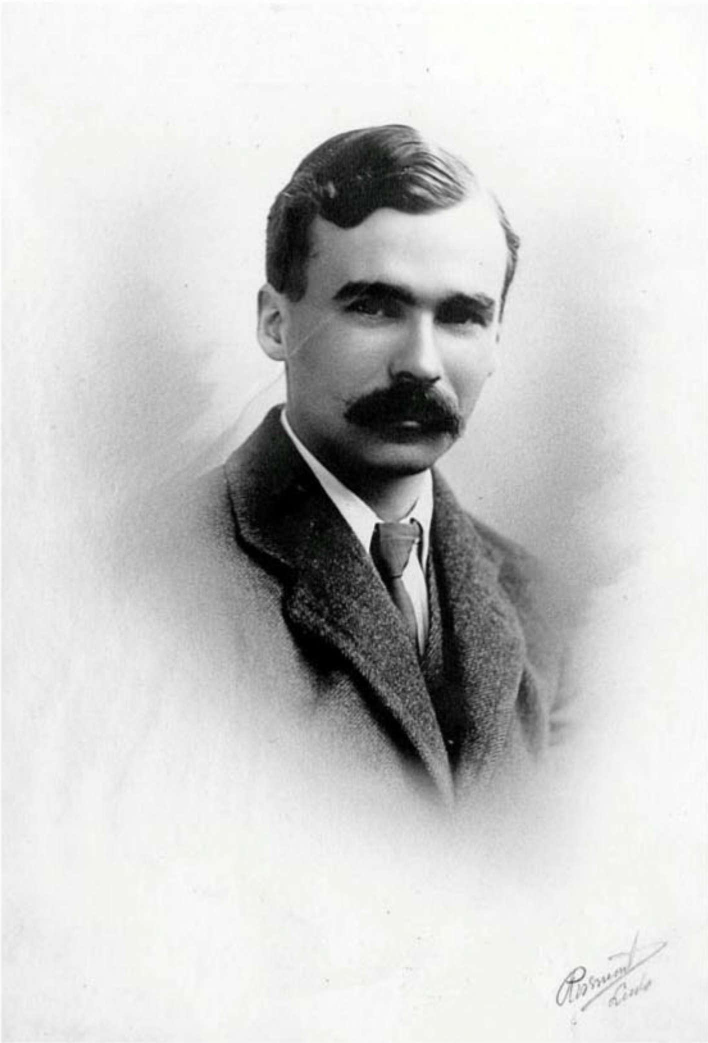


Image: Anthea Ionides

BIOGRAPHY

Born: 12 July 1885, London
Awards: Military Cross (twice)
Died: 5 August 1916 at Pozières, during the Battle of the Somme

Image: reproduced by permission of the Trustees of the former DLI and Durham County Record Office, ref. D/DLI 7/75/26

LEFT Group photograph of the officers of the 13th Battalion, The Durham Light Infantry, March 1915. Butterworth is pictured in the back row, second from the right.

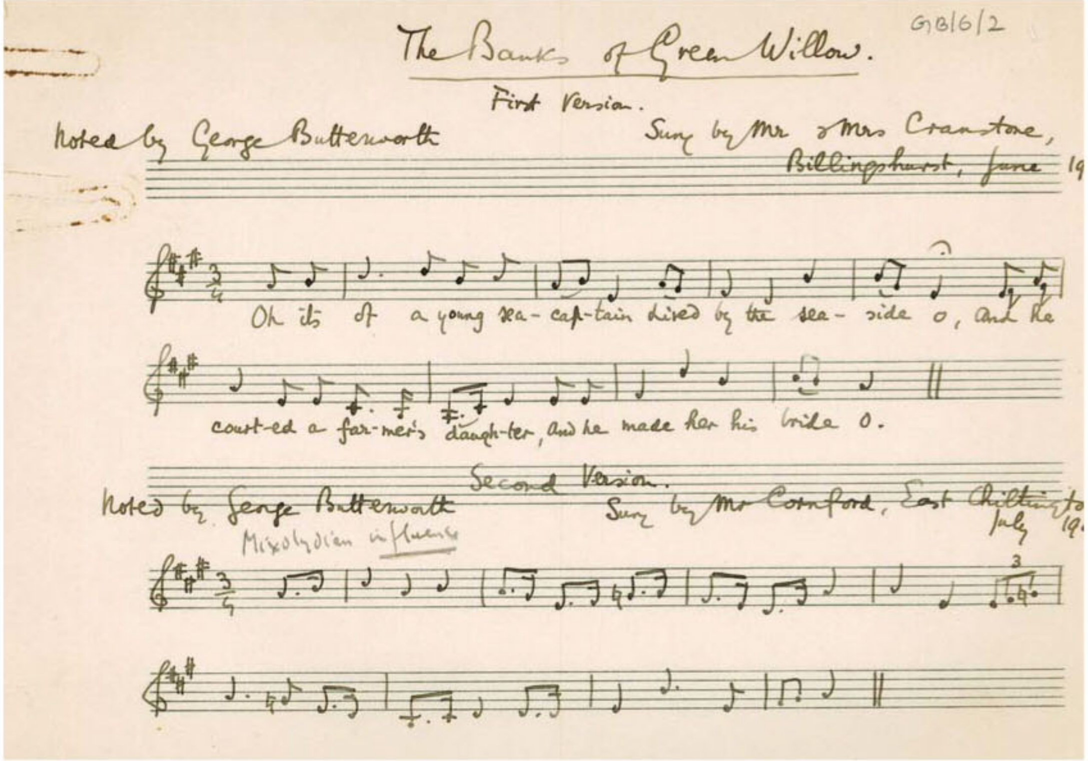

The Banks of Green Willow.
GB16/2
First Version.
noted by George Butterworth
Sung by Mr & Mrs Cranstone, Billingshurst, June 19
Oh its of a young sea-captain lived by the sea-side o, and he
courted a farmer's daughter, and he made her his bride o.
Second Version.
noted by George Butterworth
Mixolydian influence
Sung by Mr Comford, East Chiltington July 19

Image: The English Folk Dance and Song Society

ABOVE *The Banks of Green Willow* is one of Butterworth's best-known compositions.

in August 1915, he initially saw little combat. But, after a brief return to England in early 1916, he was soon back in France, and by July his battalion was on the front line.

Butterworth was level-headed and brave in battle, and was awarded the Military Cross 'for commanding his company with great ability and coolness' at Pozières between 17 and 19 July 1916. He seemed at last to have found the purpose that had eluded him in civilian life. He received a shrapnel wound at the end of July, but it was not serious enough for him to be sent home. Ironically, a larger wound would have saved his life.

PROMISE UNFULFILLED

In the early hours of 5 August 1916, his unit was engaged in an attack on a trench called Munster Alley. It was here that Butterworth met his fate. Brigadier-General Henry Page Croft wrote to Butterworth's father, extolling his heroism:

> *I went up to the farthest point reached with Lieut. Kaye-Butterworth. The trench was very low and broken, and he kept urging me to keep low down. I had only reached the Battalion Headquarters on my return when I heard poor Butterworth, a brilliant musician in times of peace and an equally brilliant soldier in times of stress, was shot dead by a bullet through the head. So he, who had been so thoughtful for my safety, had suffered the same fate he had warned me against only a minute before.*

Given the situation, it was not possible to recover Butterworth's body. He was buried near Munster Alley. Although no sign of his grave now remains, the place where he died was named Butterworth's Trench in his honour. The Thiepval Memorial nearby contains his name among the fallen. Of those dancers who were in Cecil Sharp's troupe, half were killed in the Battle of the Somme.

Sir Alexander privately published a tribute to his son in 1918, the *George Butterworth, 1885-1916, Memorial Volume*. Containing letters, remembrances, praises, and other writings, it was distributed to his son's friends and colleagues.

Butterworth was remembered as a composer of great promise unfulfilled. His devotion to the war's cause and his heroism in battle tragically cut short his life, and has left lovers of classical music to wonder what more he might have achieved if he had returned safely. •

IN CONTEXT: BUTTERWORTH

Artistic expression

Despite the long hours that Butterworth spent in training and eventually on the front line, he did not compose any new music, and surprisingly, seems to have abandoned it completely; his diary makes no mention of music at all.

Other composers at the time reacted similarly to their experiences, though some, such as Ivor Gurney, turned to writing poetry as a different form of artistic expression. Butterworth may have felt a sense of resignation, a feeling that he would not return. Or, given that he destroyed so many of his pieces before leaving home, he may simply have felt that his work was done.

He did collect some folk songs from a group of Durham miners under his command, whom he regarded as friends, despite their different social stations. The war had an equalising effect, and class distinctions were unimportant in the life-or-death situations encountered in the trenches. This egalitarianism helped break down class divides after the conflict.

4 QUOTES ABOUT BUTTERWORTH

“There came a time when he felt that, so far as he was concerned at least, all that could be done had been done... War seemed to provide the release.”

R O Morris

“I sometimes dread coming back to normal life with so many gaps – especially of course George Butterworth...”

Composer Ralph Vaughan Williams

“The pre-war compositions of our younger composers... seem like something prophetic of this present tragedy of the world.”

Lucy Broadwood to Sir Alexander Kaye Butterworth

“The death of Butterworth in 1915 [*sic*] was a tragedy, the nature of which no country with any pretensions to the preservation of culture and a respect for art can afford a recurrence.”

Composer Ernest Moeran

A HAPPY CONVALESCENCE

Unlike traditional military hospitals, which were strictly run and often overcrowded, convalescent homes offered recovering soldiers a brief respite from First World War trench warfare. Typically staffed by volunteers guided by qualified nurses, these homes were usually temporary hospitals, set up in halls and country houses across Britain.

Century-old scrapbooks compiled by patients from one such hospital, a Red Cross Voluntary Aid Detachment (VAD) established at Hartlebury Castle in Worcestershire, are now on display at the county museum. Filled with messages, photos, poems, drawings, and a miscellany of other keepsakes, the books reveal the fleeting tranquillity experienced by the injured soldiers resident there as the world continued at war.

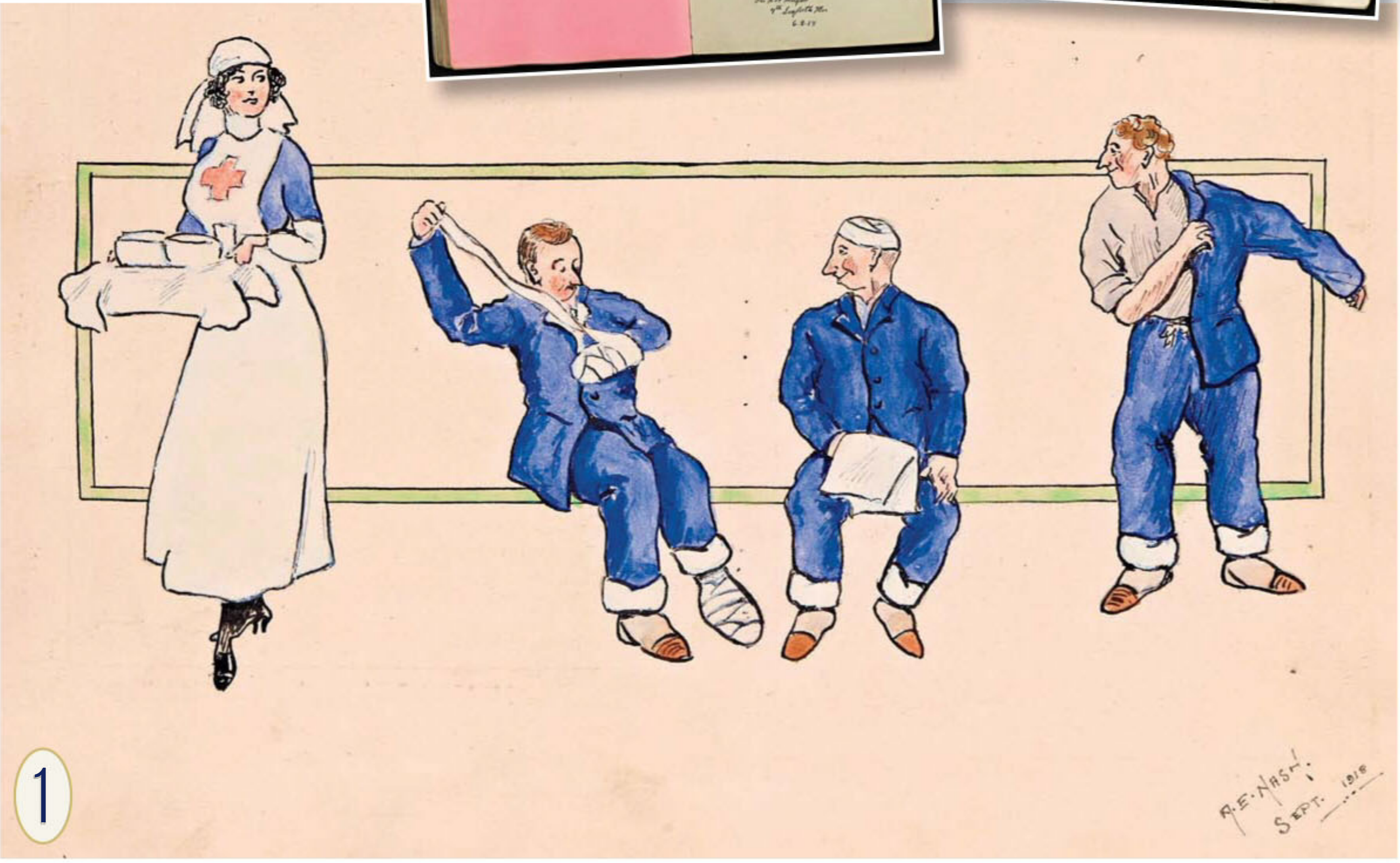
Kept and added to by the nurses, the Hartlebury scrapbooks house the fond memories of numerous wounded soldiers who enjoyed happy recoveries at the hospital, where they were encouraged to rest, draw, do crafts, read, and play games, while benefitting from the clean country air. The books also reveal the close friendships formed between the men and the nurses who cared for them: photographs abound of sisters and soldiers enjoying time together in the castle grounds.

Various forms of medical support existed to aid soldiers injured on the Western Front, and those who could not be helped on site were sent to medical stations and hospitals 'down the line' until they reached somewhere with the facilities to treat them. The worst cases were sent 'back to Blighty', where better-equipped hospitals administered treatments ranging from bed rest and massage to complex surgery and electroshock therapy.

Severely injured personnel were discharged from active service, but it remained the primary aim of the wartime medical system to return healthy men to the trenches. Leaving the hospital, one S Hohnson of the 1st Cheshires lamented, 'I was very sorry to go away, and I hope if I get wounded again they will send me back to Hartlebury.'

The following scrapbook extracts come from books owned by VAD nurse Laura Stocks, who volunteered 9,195 hours of her time to care for injured soldiers returned from the Front.

HAVIN' A PEAK ON A HIELAN' PEAK



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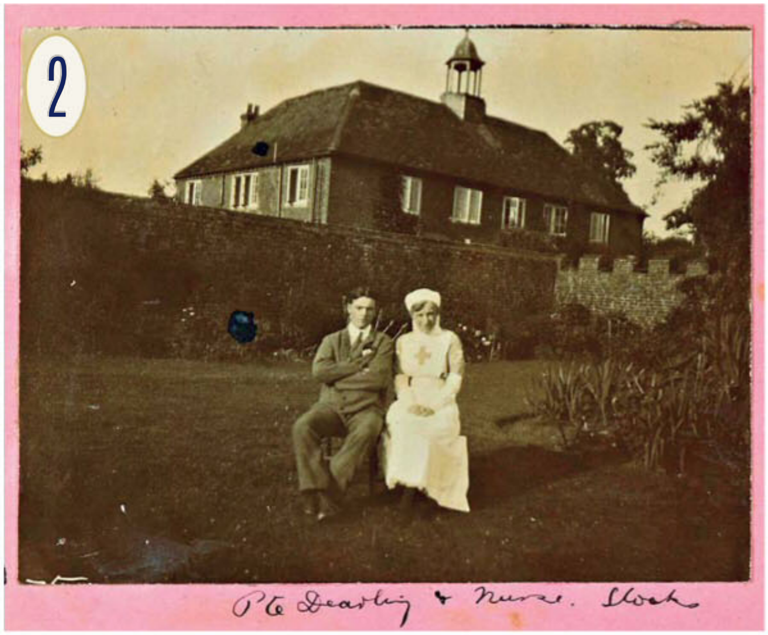

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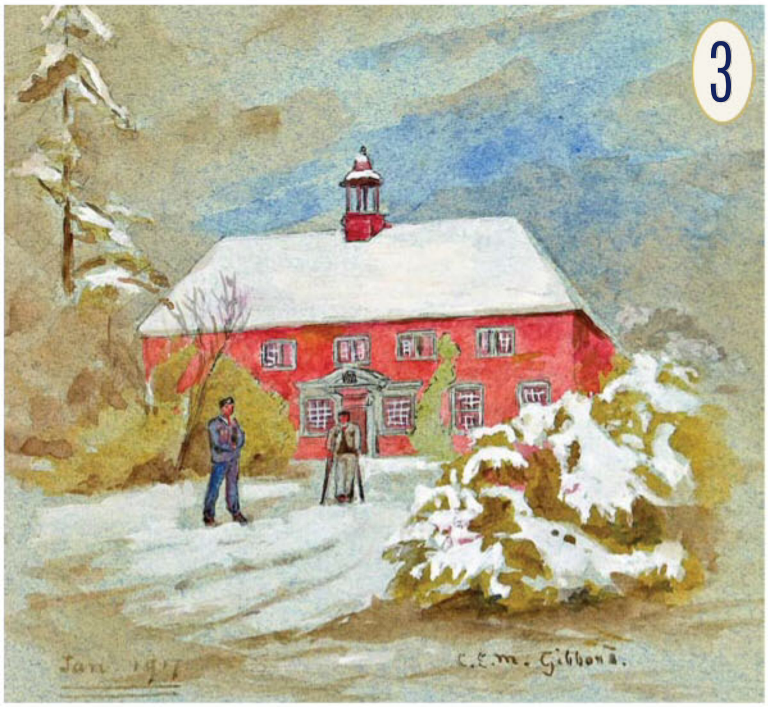

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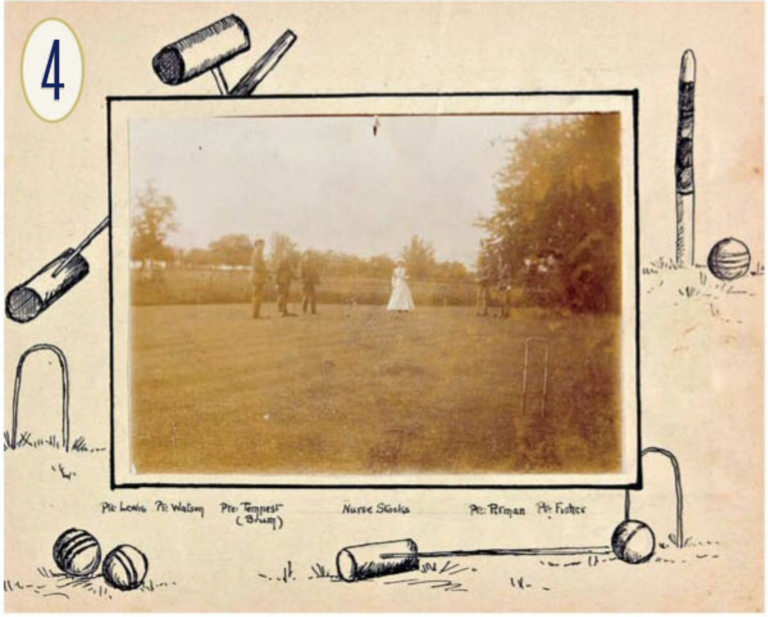

Pte Lewis Pte Watson Pte Tempest (Brum) Nurse Stocks Pte Pitman Pte Fisher

1. *UNTITLED ILLUSTRATION BY A E NASH*

Tended to by a Red Cross nurse, smiling convalescents appear happy despite their injuries.

2. *LAURA STOCKS AND PRIVATE DEARLING*

Nurse Stocks was much beloved of her patients, and one young private even penned a short rhyme about her: 'Here's my best wishes to Nurse Stocks, who is a sport and at a good joke will laugh until she rocks.'

3. *HARTLEBURY CASTLE VAD HOSPITAL*

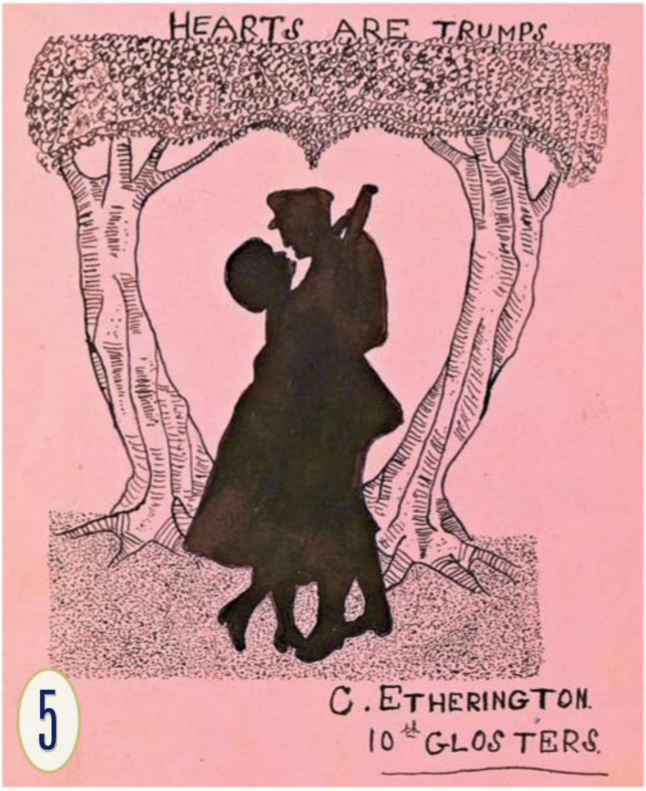
Superintendent Margaret Gibbons painted this wintry scene in 1917. It shows an injured soldier walking on crutches outside the castle stable-block in which the VAD was based.

4. *CROQUET*

As part of their treatment, recovering soldiers were encouraged to spend time outdoors rebuilding their mental and physical health. Many enjoyed playing croquet on the castle lawns.

5. *HEARTS ARE TRUMPS*

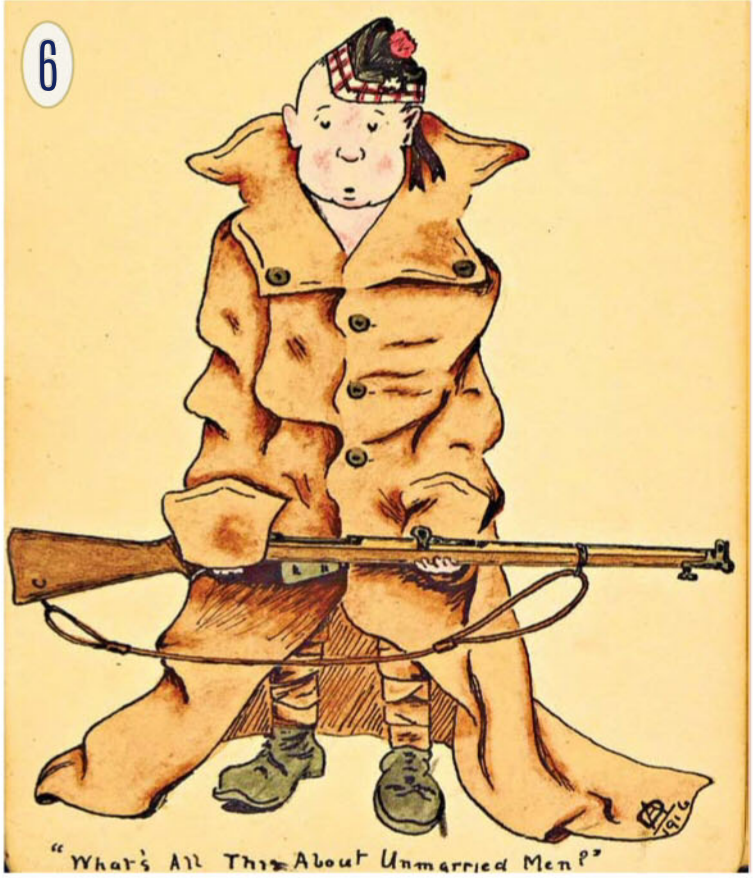
This sketch resembles the summer 1918 cover of the trench magazine *Blighty*, which featured an illustration by Army meteorologist H Cotton. The magazine cost one shilling at home, but was delivered free to soldiers in France. Cotton described his drawing in his memoirs: 'At the entrance to the farm at Le Touret there were, on either side, two trees whose overhanging branches would have produced a conventional heart-shaped space in-between, if the bases of the trunks had been much closer together. I therefore made a drawing of the trees, modified in this way, and in the space between drew a silhouette of a soldier saying "goodbye" to his girl. I did not suggest a title, but it was published with the caption "Hearts are Trumps".


HEARTS ARE TRUMPS
C. ETHERINGTON.
10th GLOSTERS.

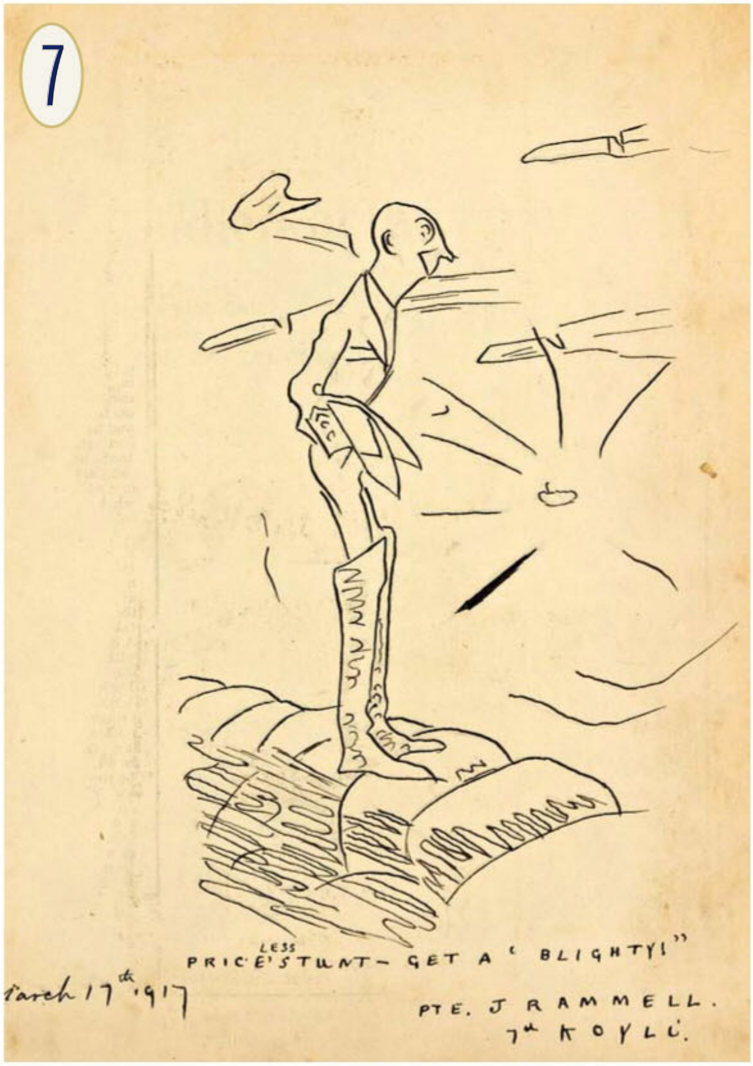
5

All images: © Worcestershire Archive and Archaeology Hub

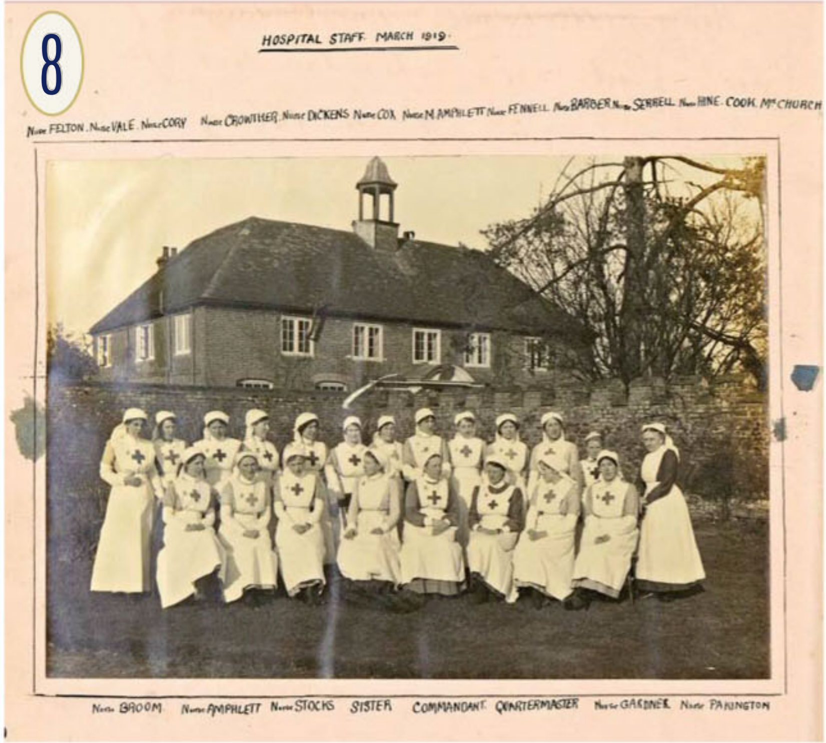
6


1916
"What's All This About Unmarried Men?"

7


PRICE'S LESS STUNT – GET A 'BLIGHTY!"
arch 17th 1917
PTE. J RAMMELL.
7th KOYLI.

8


HOSPITAL STAFF. MARCH 1919.
Nurse FELTON. Nurse VALE. Nurse CORY Nurse CROWTHER. Nurse DICKENS Nurse COX Nurse M. AMPHLETT Nurse FENNELL Nurse BARBER Nurse SERRELL Nurse HINE. COOK. Mr CHURCH
Nurse BROOM Nurse AMPHLETT Nurse STOCKS SISTER COMMANDANT QUARTERMASTER Nurse GARDNER Nurse PAKINGTON

6. *'WHAT'S ALL THIS ABOUT UNMARRIED MEN?'*

This illustration is a copy of an original of the same name by cartoonist Bruce Bairnsfather, published in *The Bystander* magazine on 5 January 1916. The artist's humorous response to the 1916 Military Service Act, which conscripted all single men between the ages of 18 and 41, clearly impressed one of Hartlebury's residents.

7. *PRICE(LESS)'S STUNT - GET A 'BLIGHTY'!*

'Blighty wounds' were non-fatal injuries that secured soldiers a passage home (and, for this reason, were sometimes self-inflicted to escape service at the Front). Standing atop his trench, the soldier illustrated here calmly invites injury from enemy fire.

8. *HOSPITAL STAFF, MARCH 1919*

Over 90,000 people volunteered in Red Cross Voluntary Aid Detachments during the First World War, two-thirds of whom were women. Many continued to treat injured soldiers after the end of the war.

GO FURTHER

A Happy Convalescence is part of the Heritage Lottery Fund-sponsored 'Worcestershire World War 100' project. The exhibition is open from 12 March 2016 to 1 December 2018. Entry to the museum costs £5.

Worcestershire County Museum, Hartlebury Castle,
Hartlebury, nr Kidderminster, DY11 7XZ
Website: *www.museumsworcestershire.org.uk*
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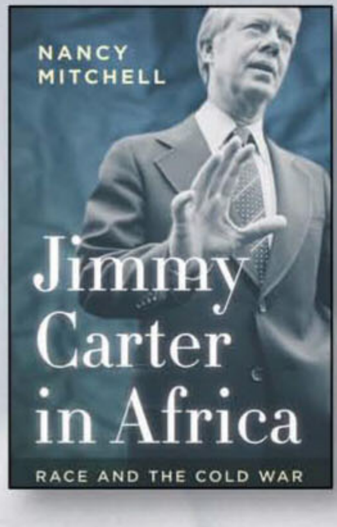
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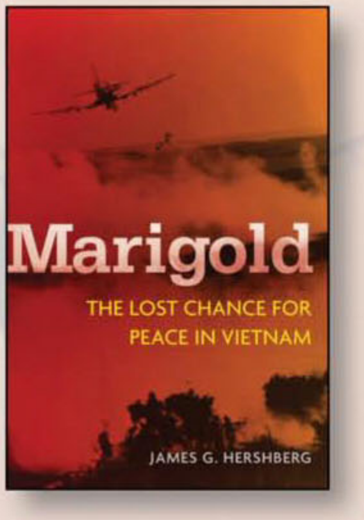
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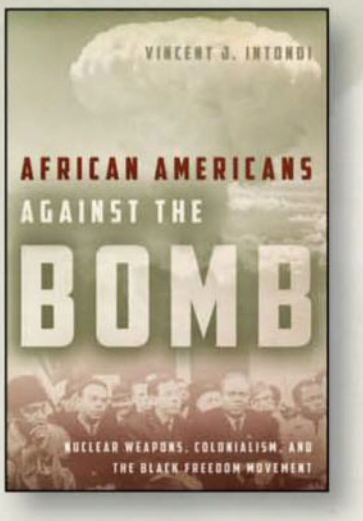
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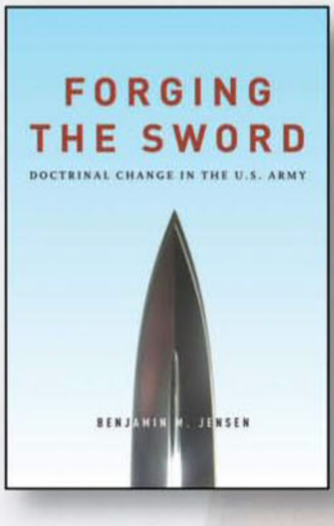
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AIR POWER

A CENTURY OF MILITARY FLIGHT

Jeremy Black, whose new study of the subject has just been published, explains why the heady claims of air-power proponents have fallen so wide of the mark.

U.S. AIR FORCE

The course of air power appears clear. The start of manned powered flight in 1903 was rapidly followed by high hopes over its potential as a new form of warfare. These hopes were taken forward by rapid improvements in the range, payload, and fighting power of aircraft during World War I.

As a result, bold assumptions were made in the interwar period about the potential of air power. Future conflict would be characterised by the use of bombers to deliver a swift verdict, and thus overcome the attritional character of trench warfare.

World War II fulfilled the hopes of air-power exponents, albeit not always in the anticipated fashion. In 1939-1942, German advances benefited from the support of air attack in blitzkrieg advances. In turn, in the Combined Bomber Offensive, Anglo-American forces inflicted great damage on the German economy.

Expectations regarding the capability of air power, in particular its strategic value, then rose to an unprecedented height when the atomic bombs were dropped in 1945. These appeared to demonstrate the ability of aircraft – indeed, of very few aircraft – to dictate the fate of nations.

As a result, American and British war planning in the late 1940s and 1950s made much of air power, seeing it as the crucial response to the superiority of the larger Soviet army in conventional warfare and, therefore, as the vital deterrent against Soviet attack.

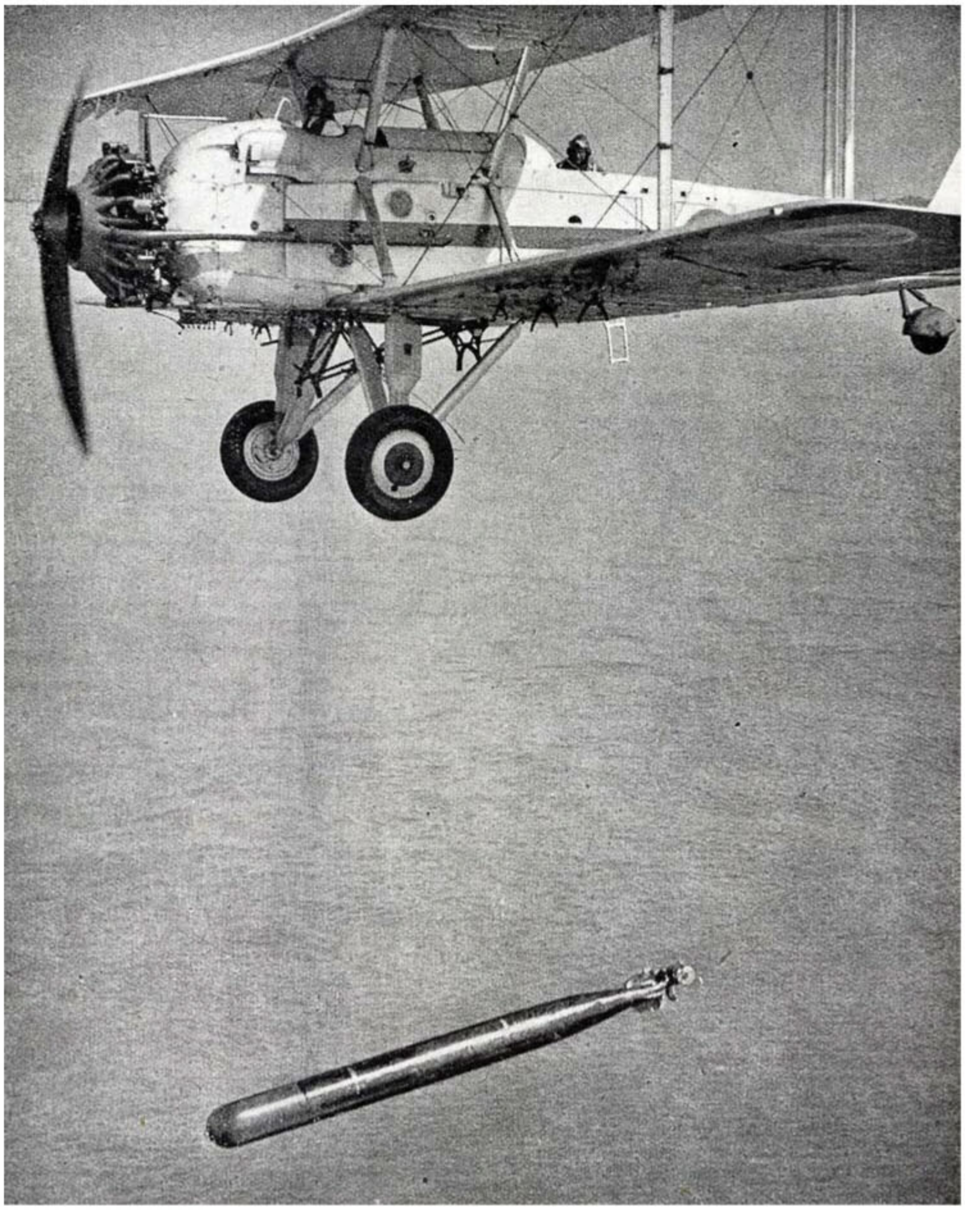
VIRTUAL REALITY

The use of air power in World War II set much of the tone for the intellectual, emotional, and visual understanding of air warfare. This was especially true of popular culture, and the influence, if not control, of America and Britain over much of the world of cinema in the quarter century after the war underlined this point. While the character of air power changed rapidly with the development of jet capacity and atomic weaponry, the image of air power did not alter in a comparable fashion.

Now the situation is far more complex. First, the historical record of air power is illuminated »

LEFT A B-52 Stratofortress drops a stick of bombs during the Vietnam War. The enemy were peasant villagers. And they ended up the victors. So what are the implications for air power?

All images: WIPL



ABOVE HMS *Ark Royal* and Fairey Swordfish fighter-bombers, photographed during the Second World War. The conflict seems to have been the heyday of both aerial bombing and aerial combat involving large formations of manned aircraft.

The dropping of the atomic bombs in 1945 appeared to demonstrate the ability of aircraft to dictate the fate of nations.

by the theme of failure. This theme focuses on the American intervention in Vietnam, which, due to the use of American air power, became the most bombed country in history – but without the Americans being able to determine the outcome. The earlier Korean War had also become a stalemate despite Allied air superiority.

More recently, there have been similar assessments of air power in counterinsurgency wars, notably by America and its allies in Afghanistan and Iraq.

Air power might have become the politicians' weapon of choice, replacing gun-boat diplomacy and combining maximum destruction with minimum commitment, but, repeatedly, it has failed to deliver as expected.

BAD PRESS

A second problem is that the historical record of air power has been tarnished by criticism of its use against civilians, and by repeated suggestions that it is immoral – or worse.

Thus, the Combined Bomber Offensive against Germany is stigmatised, notably by reference to the 1945 attack on Dresden, and there is widespread criticism of the use of the atomic bombs.

The bombing of Vietnam is attacked for its ethos and methods, as well as (separately) for its lack of success. North Vietnam won the propaganda war, and air operations were portrayed as both unethical and ineffective.

A third problem is more interesting. During World War II, the major powers could afford air forces containing very large numbers of aircraft, a corresponding number of pilots, and many types of aircraft. None of this is any longer possible.

The inflation of costs in developing and procuring aircraft and their weaponry has far exceeded general price inflation, and, as a result, cutting-edge air power, as conventionally understood, has become unviable for many powers.

Separately, the rise, first, of cruise missiles and, subsequently, of drones has led to

LEFT The popular view of air power: British Hurricane pilots 'scramble' at an airfield in northern France in 1940.

questions about the future of manned flight itself. Might it go the way of other essentially defunct systems, such as the battleship?

CHEAP HAWKERY?

Questions about the continuing rationale and relevance of air power are bound to have an impact on how we view the history of air war. Air power has always appealed to those looking for the 'modern', the 'latest', the strategic 'magic bullet'. Military aircraft have served the cause of what Harvey Sichermann in 2002 called 'cheap hawkery'.

However, the accounts of contemporaries about effectiveness, and the hopes of the advocates of air power, have frequently proved misplaced, often widely so. This is the case for both the military outcomes of its use and the political consequences.

Nevertheless, despite the problems, air power has dramatically changed equations for firepower and mobility. More specifically, both in its own right and as part of combined air operations, air power has made manoeuvre warfare a more central part of conflict. As a result, it has greatly increased the tempo of war, as well as its potential deadliness.

As was the case with tanks, early hopes – and fears – in relation to military aircraft were exaggerated. But by the late 1930s, and more so during the 1940s, aircraft specifications and air-force organisation improved to such a degree that it was possible to implement the more ambitious plans.

All of the combatants in World War II believed in the value of air dominance or superiority, and in its impact on operations on the ground – even if not all pursued the latter with the immediacy understood by the term 'ground support'.

Indeed, the emphasis on the war-winning potential of air power encouraged Britain and America – neither of which saw their armies as war-winning – to focus on gaining an air dominance that could be used to facilitate strategic bombing campaigns against their opponents' home countries. This, rather than ground support, was the primary aim.

STRATEGIC BOMBING AND THEATRE SUPREMACY

Strategic bombing was not, however, an exclusive preoccupation. There was sometimes haziness as to whether strategic bombing or theatre air-supremacy was the priority.

The goals of air power were not static. They were affected by resources, opportunities, doctrine, and the ability to respond. Thus, for example, the American ability to demonstrate flexibility and rethink the situation, and the capability to plan and produce accordingly, led to the development and effective use of long-range escort fighters.

The post-war situation was influenced by Maoist revolutionary-military thought. In particular, Mao Zedong, with his emphasis on guerrilla warfare, took further the anti-technology emphasis in early Communist ideas, arguing instead that mass action and popular determination could substitute for weaponry.

These ideas proved highly significant across the world in the many anti-Western insurrectionary struggles of the late 1940s to the mid-1970s.

In practice, success or failure depended on a complex of different factors. Nevertheless, the problems latent in employing air power in COIN, or counterinsurgency operations, were present from the outset. Tactical and operational limitations, including maintenance, logistics, and the security of air bases, were matched by strategic counterparts, notably the inherent difficulty in terminating embedded insurgencies.

AIR POWER AND THE IMAGINATION

ABOVE The launch of a Titan II missile. Despite the impression given by *Star Wars*, the days of large numbers of manned fighters engaging in aerial dogfights are over. The popular image of air war is out of date.

Aircraft have a great capacity to grasp the imagination and suggest a particular potency. In part, this is because missiles are not associated with individual bravery, and thus masculinity. Moreover, the limitations of air power are not apparent to most public commentators, certainly as far as popular culture is concerned.

Instead, despite ethical doubts about strategic bombing, a widespread heroic ideal of aerial conflict, one focused on fighters and aerial interception, prevails. This is the case both for the leading military powers, as in the popular American film *Top Gun* (1986), and more generally.

The latest *Star Wars* film offers more of the same, with its depictions of manned flight and aerial dogfights, often involving large numbers of small aircraft engaging at exceptionally close range.

COST-BENEFIT ANALYSIS

The limitations, both of air power and of conventional military methods, did not equate with uselessness, even if a cost-benefit analysis of air power could be bleak. »

> **‘Before the present century has run its course, there is nothing fantastic in suggesting that complete armies will be whisked through pure speed a thousand miles above the Earth’s surface, to speed at 10,000 miles an hour toward their enemy.’**
> *J F C Fuller, ‘The Future of War’,* Newsweek, *25 December 1944*

Air power has become both the key means of power projection and the most deadly and rapid form of delivering force at a distance. There are many successes to be set against the relative failures.

The Israeli victories of 1967-1982 seemed to vindicate Western confidence in air power. Its value in the wars against Iraq in 1991 and 2003 was reflected in swift deployment, asymmetric capability, integration with land forces, and targeted destructiveness.

Separately, however, the conflicts in Afghanistan and Iraq served to demonstrate anew the strategic, operational, and tactical value of air power alongside the difficulty of translating power projection and delivery of force into a successful military and political outcome.

Air power, like space power, has greatly changed global-reach capabilities, but it has not altered the way the global system operates politically, nor radically altered the concentration of military capabilities. Britain and America, the leaders in sea power, also became the leaders in air power (especially if naval air power is part of the equation) – albeit subject to short-term challenges, as well as more enduring questions about their ongoing effectiveness as the leading states.

These two military powers have been technological leaders and, like other states

BELOW Counterinsurgency air power in Vietnam. **[MAIN IMAGE]** Helicopters come in to land at a US Army base. **[INSET]** Machine-gun fire is sprayed from a helicopter at a suspected Vietcong position.

250 CAL .30
LINKED
FUNCTIONAL

The Israeli victories of 1967-1982 seemed to vindicate Western confidence in air power.

ABOVE An LTV F-8 Crusader fighter awaits catapulting from the USS *Constellation* during the Vietnam War. The rising relative cost of air power has become a major constraint on its acquisition and use by second-division states.

with cutting-edge technology, have tended to rely, at least in part, on air power precisely because of their economic and technological advantage.

By its very nature, air power is an exclusive capability. The costs associated with high-tech air systems exclude all but the few – though, in certain circumstances, air power can be the weapon of the underdog, because of its potential deterrent effect.

SEPARATION AND COMBINATION

Throughout the history of air power, there has been the general problem of understanding the battle-space prior to attempts to shape it.

In the 1920s and 1930s, air-power advocates, keen on creating separate air forces, made grandiose claims for the ability of strategic bombing alone to win wars, and also for aircraft as a cost-efficient means of imperial control. These claims, however, were exaggerated on both heads.

As a 1922 report by the General Staff of the British Forces in Iraq noted, 'Aeroplanes by themselves are unable to compel the surrender or defeat of hostile tribes.'

This observation remains relevant to the modern use of air power. The tactical and, thus, operational effectiveness of aircraft was probably overestimated once their novelty had worn off and native tribesmen had learned how to evade their attacks – notably by employing cover and moving by night. The same was to be the case with American air power in Vietnam, Afghanistan, and Iraq.

The logic of air power was empire, while the logic of empire was enhanced by air power.

Comments were scarcely value-free. The discussion in the 1920s reflected the RAF's attempt, at a time of stringent public-expenditure cuts, to avoid being subsumed into the Army.

Western public opinion readily accepted the use of air power for imperial and quasi-imperial control. Indeed, air power appeared to many as inherently desirable. Western control was presented as leading to modernisation, which was very much a theme of imperial ideology and governance in this period.

The logic of air power was empire, while the logic of empire was enhanced by air power. The interwar use of air power, however, had already revealed that it might be less effective in conflict and deterrence in the future than its protagonists claimed.

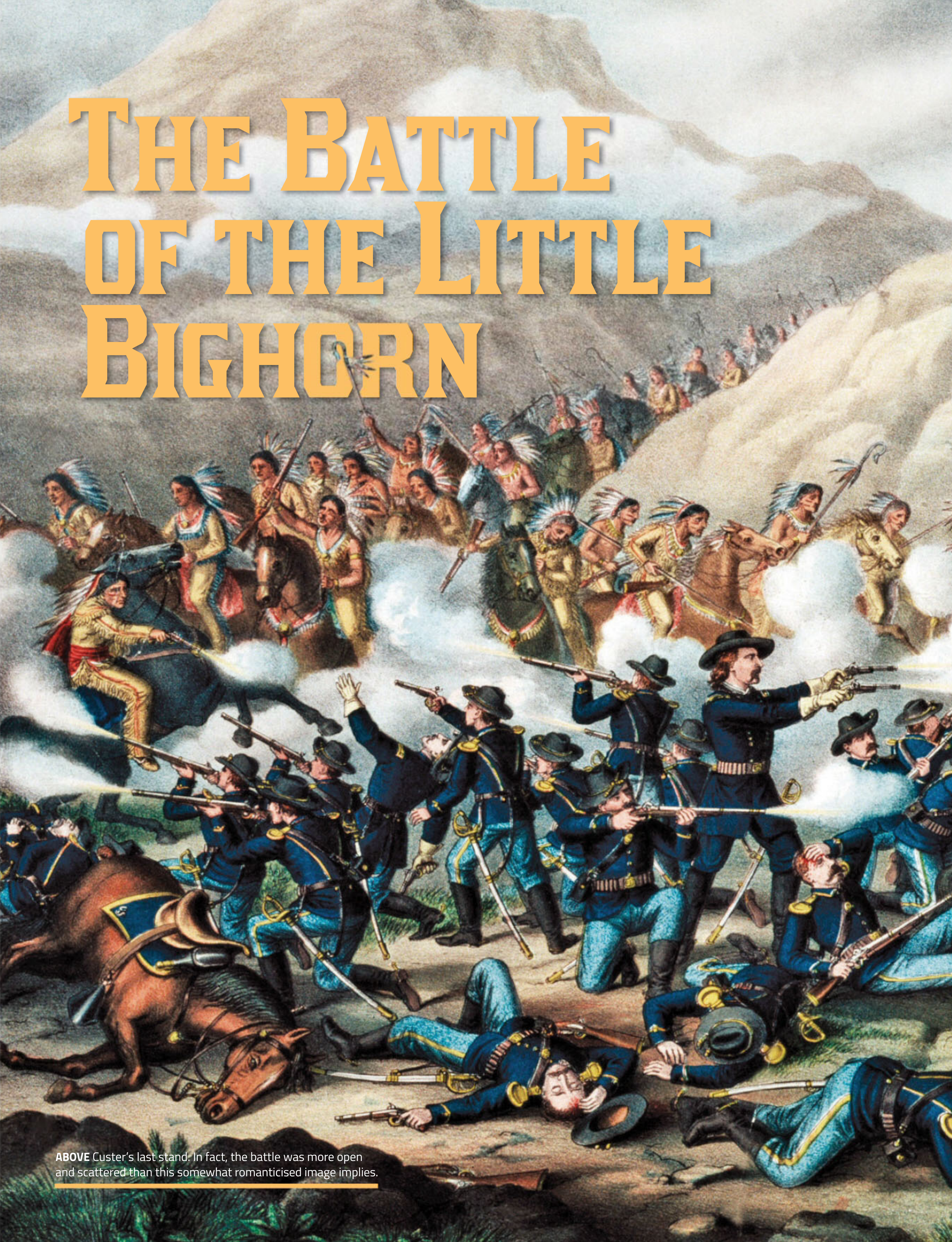
Air power is a product of industrially based Great Powers with imperial reach. These powers tend to give rise to combined, integrated, high-tech military forces, with corresponding military doctrine.

The result is often an overestimation of the capability of industrialised mobility and firepower – of which air power is the supreme example – and an underestimation of the problems involved in converting such technical superiority into lasting control over contested space and an enduring political settlement. •

'The Air will dictate strategy and therefore dominate all wars because of its overall influence.'
Hugh Trenchard, former head of the RAF, The Effect of the Rise of Air Power on War, *1943*

Jeremy Black is the author of Air Power: a global history *(Rowman and Littlefield, 2016).*

THE BATTLE OF THE LITTLE BIGHORN



ABOVE Custer's last stand. In fact, the battle was more open and scattered than this somewhat romanticised image implies.

It is 140 years since Native Americans won their greatest victory over United States forces on 25 June 1876. Attitudes to the long-running conflict between indigenous people and white settlers on the North American continent have, of course, changed radically. We now see it as an immoral land-grab, a human tragedy, and a sequence of events tainted by double-dealing and atrocity.

In military terms, the conflict was highly asymmetrical. It pitted a fast-growing modern industrial society against a variety of Native American tribes, some of them horticulturalists, some pastoralists, others hunter-gatherers.

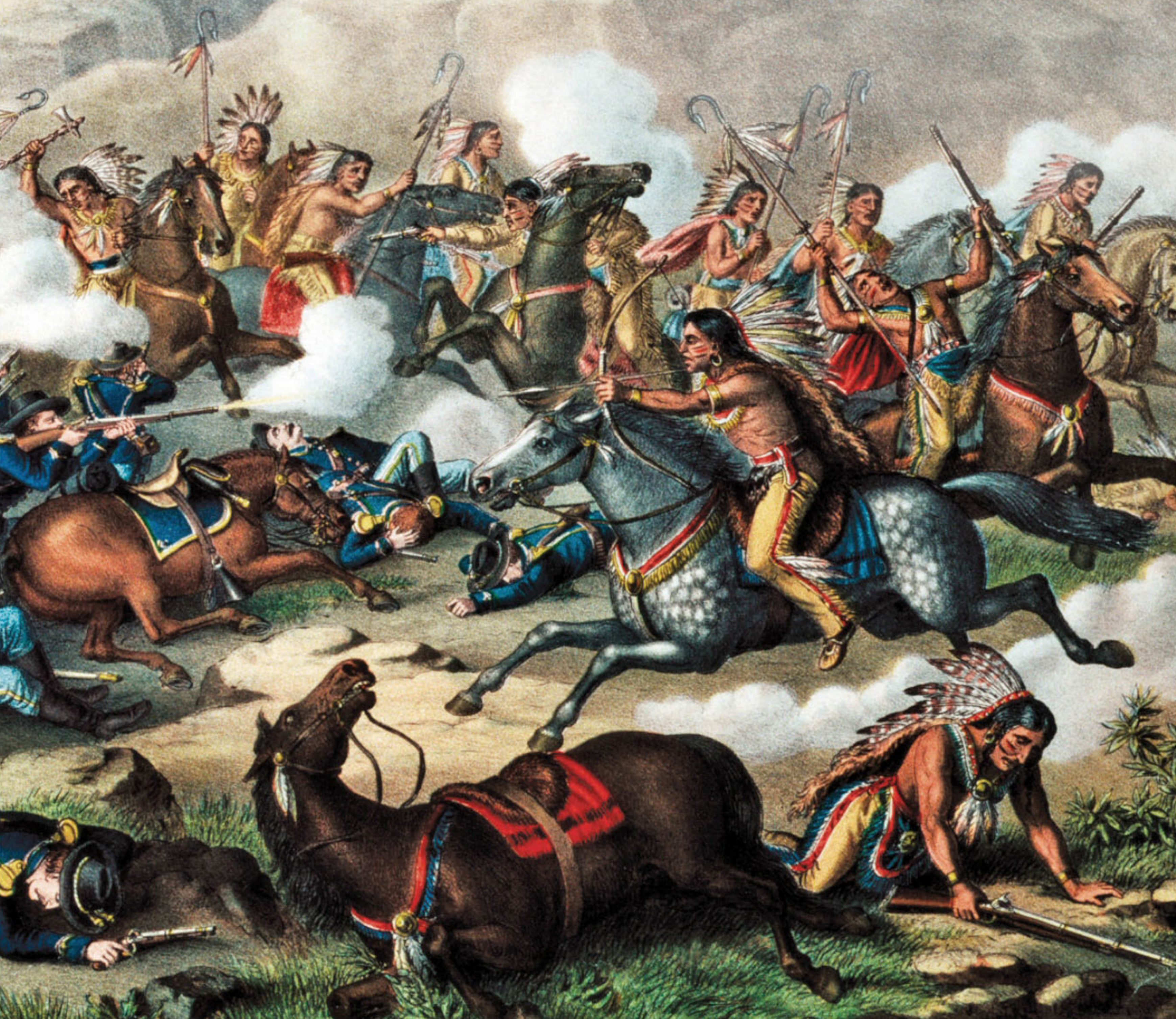
The Battle of the Little Bighorn was fought by a tribal confederation of the Great Sioux Nation on the Great Plains of the Midwest. The Sioux were mainly buffalo-hunters. Their traditional weapons were the bow, the spear, and the tomahawk, but they had adopted the horse, and many had also acquired firearms. Sioux warriors of the late 19th century were, therefore, superb light cavalry.

As such, they represented a clear and present danger to their enemies. Like the Zulus or the Dervishes, they had exceptional military qualities, and the security of modern forces depended on the delivery of controlled, concentrated fire. Regular soldiers caught on the move or too scattered were highly vulnerable to rapid swoops by massed Sioux cavalry.

A particular risk arose when intelligence was defective, and the senior command was over-confident. This was the case at Little Bighorn. The fault was then compounded by excessive subdivision of an already inadequate US force in order to accomplish an encircling manoeuvre – in the face of what turned out to be overwhelmingly superior numbers.

None of this is to underestimate the courage displayed by the Sioux warriors at Little Bighorn in the face of superior modern firepower. But it is to identify the main architect of the disaster that befell the US 7th Cavalry that day: George Armstrong Custer.

Fred Chiaventone tells the story.



25 JUNE 1876

CUSTER'S LAST STAND

Fred Chiaventone reassesses that most-famous collision between US and Native American forces.

It happened 140 years ago and was, in essence, a remarkably small engagement. Yet, despite its size and relative insignificance, this clash of arms has been endlessly written about, discussed, and debated.

On the afternoon of 25 June 1876, George Armstrong Custer led his 7th Cavalry into a disastrous engagement against the combined forces of the Lakota, Cheyenne, and Arapaho tribes on the sun-baked plains of what is today southern Montana. The clash is alternatively referred to as the Battle of the Little Bighorn, the Battle of the Greasy Grass, or Custer's Last Stand, and its ghosts are with us still.

What is it about this particular engagement that has so ensnared readers, researchers, historians, and archaeologists? A brief survey of the literature soon shows that more has been written about this one small affair than any other single battle in American history.

Some of the interest is prompted by the uncertainty about what transpired in the last phase of the fight on Last Stand Hill, more perhaps by curiosity concerning the best known casualty of the fight: George Armstrong Custer.

CUSTER: THE BACKSTORY

MAKING A REPUTATION

Custer was a larger than life personality. A less than stellar cadet at West Point, he was an indifferent scholar given to pranks and causing mischief. He acquired more disciplinary demerits than any previous cadet.

This was forgotten, however, when in 1861 his class received their commissions early with the outbreak of the Civil War. Eager to earn his spurs, the energetic young man plunged into the maelstrom of war with enthusiasm and unbridled daring.

Custer relished the thrill of combat. It was a recipe for early success, and with his adroit handling of troops in battle he quickly won accolades and promotion. By the end of the Civil War, he was the youngest major-general in the Army, and his division had acquired more battle honours and captured more enemy guns than any other Federal unit.

When Lee surrendered at Appomattox, Union General Phil Sheridan purchased the small table on which the instruments of surrender had been signed and presented it to the 'Boy General' – as he had come to be called by the newspapers and the public – intending it as a gift for Custer's wife Libbie.

LEFT Lieutenant-Colonel (Brevet Major-General) George Armstrong Custer (1839-1876) strikes a classic pose. Flamboyant, aggressive, opinionated, hot-headed: his fate at the Little Bighorn was in keeping with the character of the man.

He included a note which read: 'There is scarcely an individual in our service who has contributed more to bring about this desirable result than your gallant husband.' Custer was delighted and rode off with the general's gift balanced on his head.

AFTER THE CIVIL WAR

The years following the Civil War were less demanding but probably more challenging for the exuberant young cavalry officer who had flourished in combat. As with the bulk of the officer corps, Custer's rank as a major-general of volunteers was a brevet, or temporary rank, necessitated, so the government said, by the exigencies of a national emergency.

Thus he soon found himself reduced to his permanent rank of captain. He promptly applied for an extended leave, most of which he spent in New York City.

More has been written about this one small affair than any other single battle in American history.

In New York, a popular public figure from his wartime exploits, he was wined and dined by the elite, and eagerly explored life options, including an unwise investment in a silver-mining scheme, possibilities of employment with the railroads, and even an offer to serve as adjutant to a Mexican revolutionary.

This last was an opportunity quickly scotched by the Army leadership, who wanted no involvement in Mexico's internal troubles.

Custer, though enamoured of the bright lights and scintillating nightlife of New York, was hopelessly inept at managing any endeavour that did not involve a revolver, a sabre, and a sound horse. All his enterprises came to naught.

GOING WEST

Returning to active army life, he was assigned to what we would now refer to as 'peace-keeping duty' in the occupied southern states. Although soon promoted to lieutenant-colonel, he found post-war army life dull.

He turned down an offer to command a regiment of all-black cavalry troopers. For all of his success in fighting to preserve the Union, he had never embraced the idea of black men as soldiers, despite the fact that one of his closest associates was his black cook, Eliza. It was an attitude not uncommon among soldiers at the time.

It was a transfer to the plains and the prospect of action against Native American warriors that made army life appealing again.

Assigned to command the newly formed 7th Cavalry in 1868, he accompanied Major-General Hancock's abortive attempt to subdue the Cheyenne.

It was a terribly mismanaged affair that sputtered to an inconclusive end. This frustrating episode was followed by an exhibition of very bad judgment.

Custer left his command at Fort Wallace in Western Kansas, taking 75 troopers with him to Fort Harker, some 225 miles distant. While Custer protested that this flying column had gone for supplies for troops at the under-supplied and cholera-ridden post at Fort Wallace, his superiors were not convinced.

The fact that en route he had ordered his command to shoot several men who had deserted, and had also failed to retrieve the bodies of two soldiers killed by Native Americans complicated the issue. The additional fact that his wife Libbie was waiting for him at Fort Harker made this foray even more questionable.

Custer was ordered to Fort Leavenworth to face a court martial for, among other things, being 'absent without leave' (AWOL) from his command. The former *beau sabreur* of the Civil War was found guilty of five charges amounting to dereliction of duty.

While in today's army that would have finished his career, the frontier army had a different approach, and he found himself merely suspended from rank and pay for one year.

RETURN TO COMMAND

It was not an unpleasant sentence. The Custers lived in the spacious quarters assigned to General Phil Sheridan, who was serving in Washington DC at the time. After a brief stay, however, the Custers moved to a home in Monroe, Michigan, where George was free to hunt, fish, boat, and socialise.

The exile was short-lived. Another military campaign against hostile Indians was brewing. A telegram from Sheridan arrived saying: 'Generals Sherman, Sully, and myself, and nearly all the officers of your regiment, have asked for you… Can you come at once?'

Delighted to be back in the saddle and in command of troops in the field, Custer

THIS PAGE Two contemporary images of the Sioux, one **[BELOW]** a painting by Karl Bodmer from 1833; the other **[LEFT]** a photograph of Chief Bone Necklace taken on a reservation in 1899.

soon distinguished himself in action against Native Americans at the Washita, Tongue, and Yellowstone Rivers.

Custer, as he had throughout the Civil War, invariably led from the front, but this was a different kind of war against an elusive foe reluctant to fight except when favoured by overwhelming odds.

It was a far cry from brutal encounters with Confederate divisions. Such were their intensity that at Spotsylvania, for example, a tree measuring three feet in circumference had been cut down entirely by rifle fire.

Out on the plains, Cheyenne and Lakota warriors were unlikely to stand and fight unless absolutely necessary. In the face of strong forces, they were apt to melt into the countryside. For the flamboyant and aggressive Custer, this was frustrating in the extreme.

Dislike of Custer had, over a period of 16 years, grown into bitter hatred on Benteen's part.

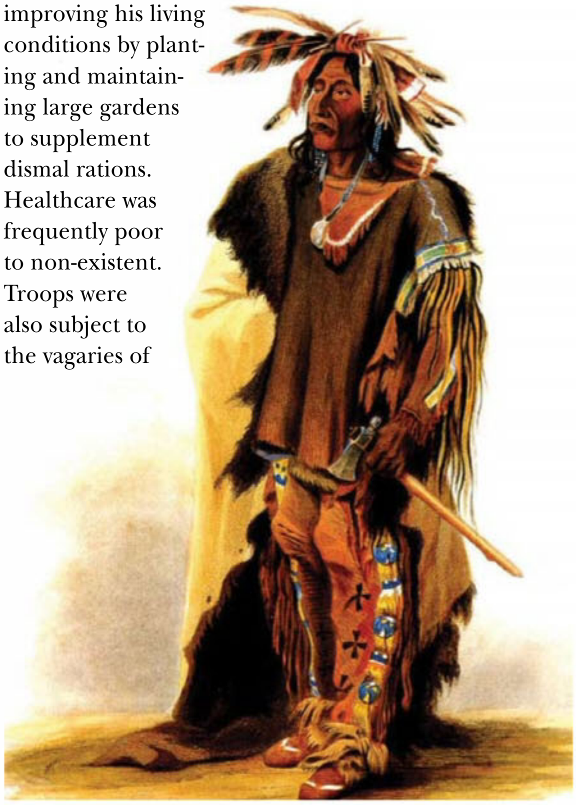
FRONTIER ROUTINE

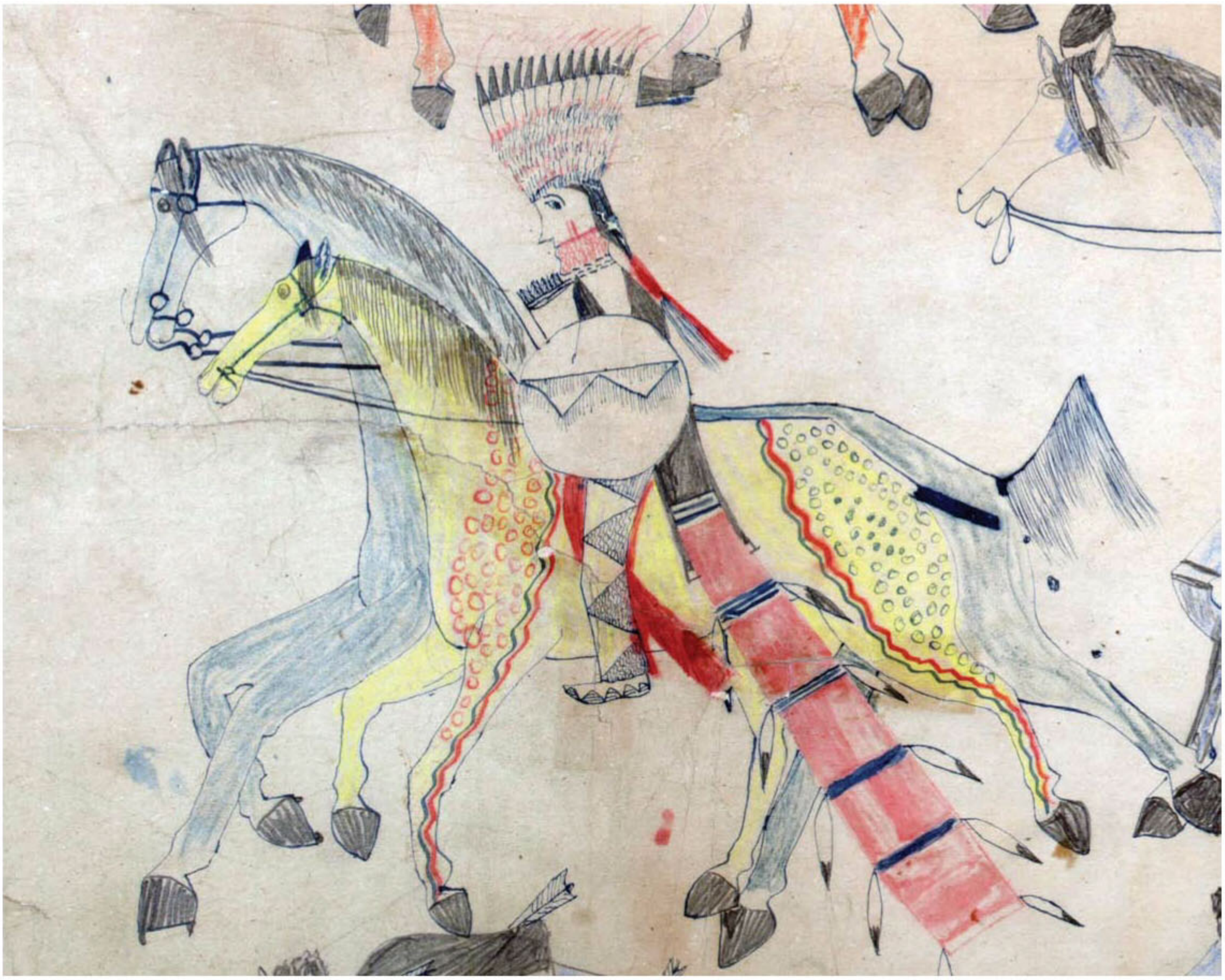
It is easy to imagine the American West as one long Indian war. The struggle between white expansion and the indigenous tribes did indeed last for nearly a century, but was punctuated by long periods of relative tranquillity.

The Army, which after the Civil War had been reduced to about 10,000 regulars, was thinly spread over a vast territory. Military posts were small, the garrisons frequently no larger than company size, and scattered in remote locations across the West. The duties of soldiers included escorting the mail services, exploration and mapping, assisting surveyors and work crews laying out a system of transcontinental railroads, and providing security for ranchers, farmers, hunters, prospectors, and emigrant wagon-trains.

There were advantages to life on the frontier. Social gatherings, outings, and picnics were common diversions. Some units had a regimental band. There were amateur theatricals, impromptu minstrel shows, card parties, even costume balls. Hunting parties were a natural pastime with game so plentiful in the form of deer, elk, antelope, bear, and buffalo.

There was, however, a down side. When not engaged on active duty, a soldier's free time was often spent improving his living conditions by planting and maintaining large gardens to supplement dismal rations. Healthcare was frequently poor to non-existent. Troops were also subject to the vagaries of





ABOVE One of Red Horse's drawings of his own people at the Battle of the Little Bighorn. Graphite, coloured pencil, and ink; 1881.

blistering heat, dust storms, and ferocious snow storms.

Frontier soldiers, both officers and enlisted, suffered from rotting teeth, arthritis, rheumatism, and compressed vertebrae from endless hours in the saddle. Far too many succumbed to the bottle. Many enlisted men deserted.

THE BLACK HILLS

The crisis came unexpectedly, as crises sometimes do. Custer led an expedition to survey the Black Hills. Some accompanying scientists confirmed the presence of gold in the area. When reports reached the eastern newspapers, eager prospectors and fortune-seekers swarmed into the area.

The United States was in the midst of an economic depression, and this encouraged the flood of poor men seeking to make their fortunes. But the region wherein lay the highest concentration of gold happened to be the favored hunting grounds and sacred territory of the Lakota, Cheyenne, and Arapaho tribes.

The major drawback was the distance separating the three forces.

Washington, far removed from the frontier and desperate to find some way of relieving economic distress, did not discourage the gold-seekers. On the contrary, the US Government rebutted the protests of the native tribes, ordering them to return to designated reservation areas before January 1876.

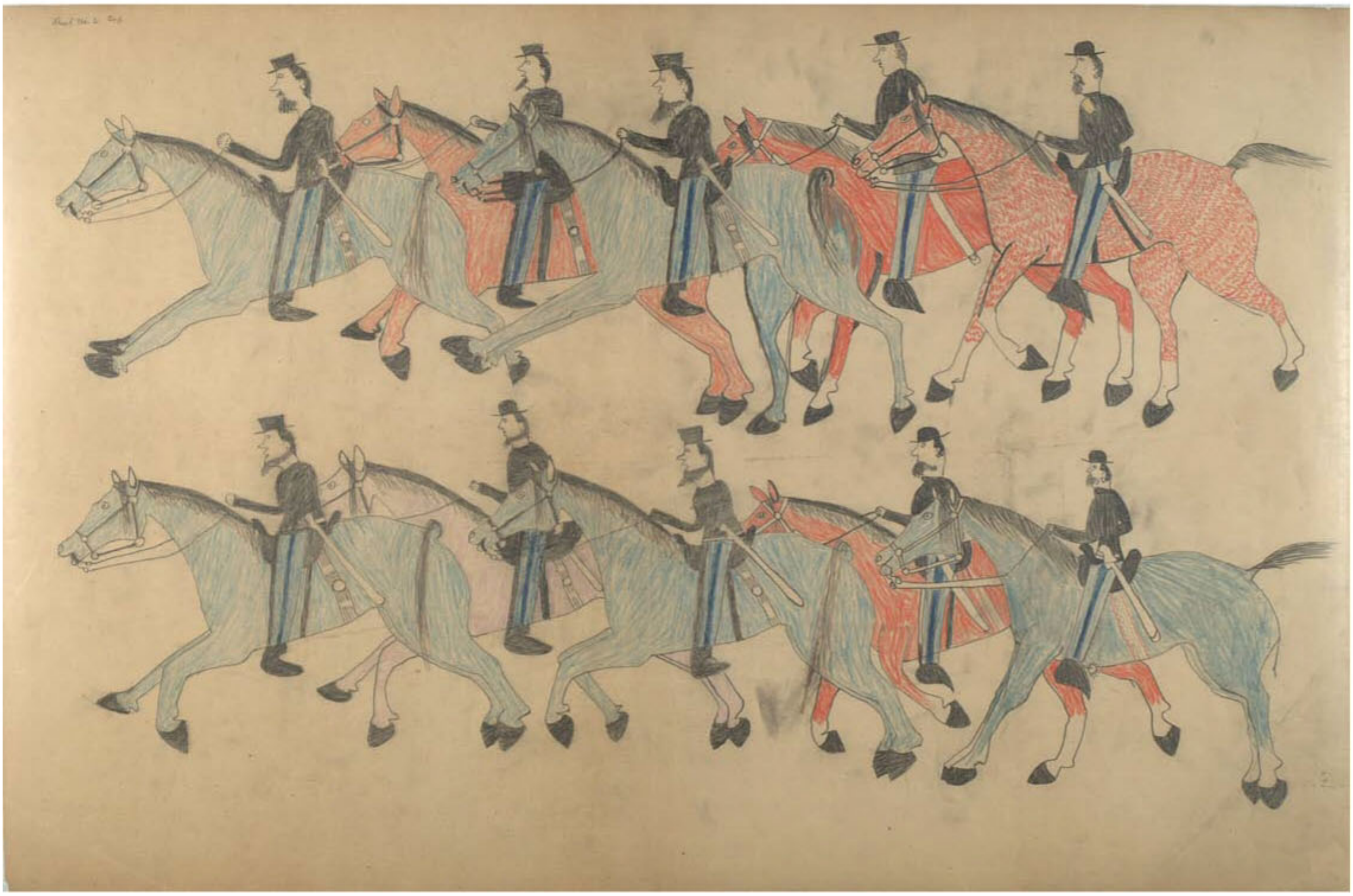
The problem was that winter had already closed in on the western plains, and the tribes had neither the ability nor inclination to move their families in the dead of winter.

The spurious deadline came and went: the tribes were unmoved. Thus the die was cast. Orders were issued to the Army to mount an expedition to corral the renegade Indians. The 7th Cavalry was one of the units assigned the task. Custer was delighted by the prospect of an active campaign. Once again he would be in his element.

CAREER IN THE BALANCE

Custer's plans were disrupted by political developments in Washington, however. The sitting President was Ulysses S Grant, the »

Image: National Anthropological Archives, Smithsonian Institution, Department of Anthropology. Accession no. 08570700



ABOVE Red Horse's drawing of mounted 7th Cavalry troopers on the move at the Battle of the Little Bighorn. Graphite, coloured pencil, and ink; 1881.

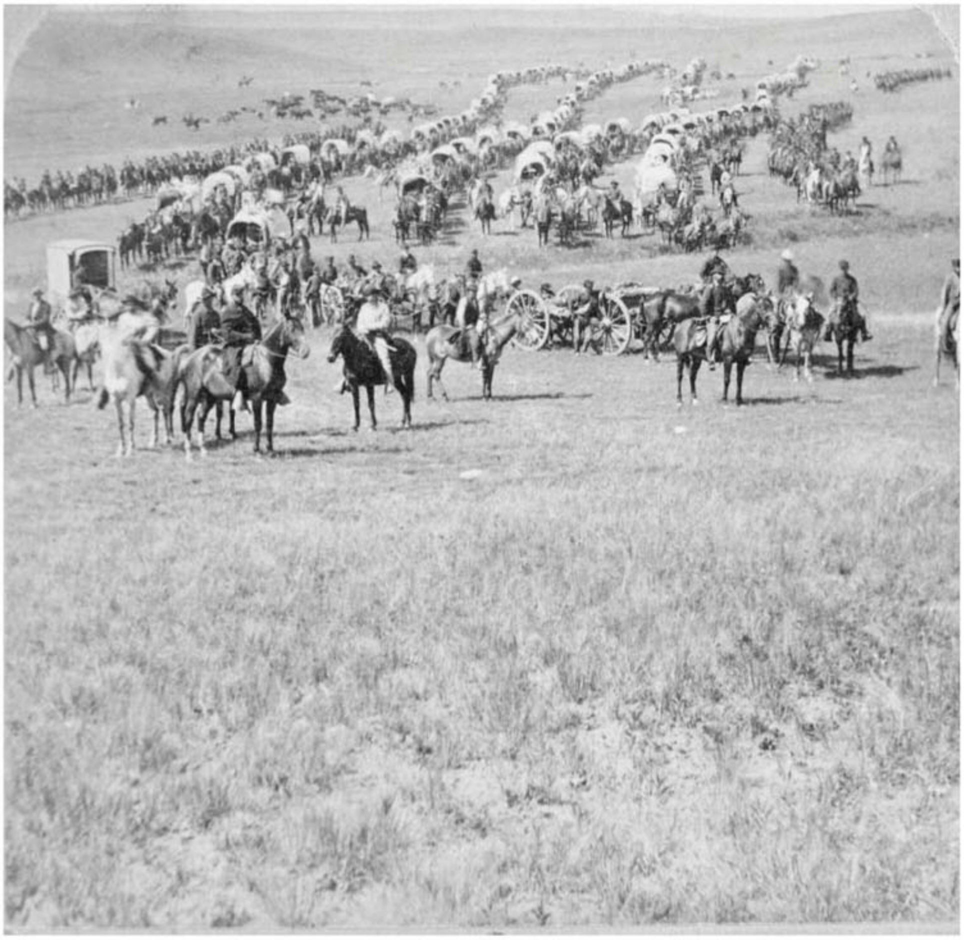
Image: National Anthropological Archives, Smithsonian Institution, Department of Anthropology. Accession no. 08568000.

great Civil War general, who had never been a fan of Custer.

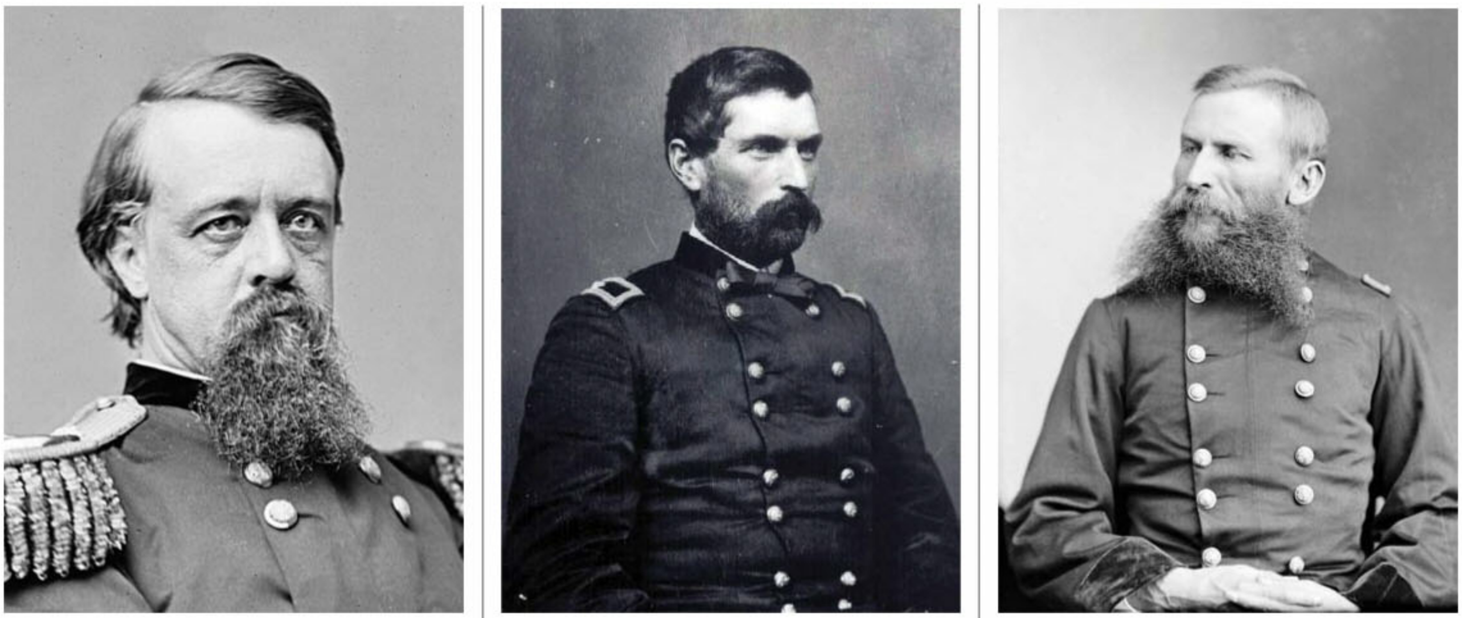
A diligent and serious man, Grant was also too trusting of his associates, and his administration, unbeknownst to him, was rife with corruption. Congress had convened a committee to investigate some of the more egregious charges of dishonesty in government at the War Department, and Custer, having established a reputation for bluff honesty and familiarity with conditions on the frontier, was called to Washington to testify.

While he had little of import to add to official testimony, Custer made the tactical blunder of naming Grant's brother Orville as one of those benefiting from the corrupt practices of Secretary of War Belknap.

Belknap had been selling interests in the trading posts established for the Army and had profited enormously from kickbacks. These trading posts were frequently the only places where soldiers could purchase such things as soap or needles and thread. Everything was offered at exorbitant prices,



RIGHT Custer's column on the move on the plains of Dakota in the 1876 campaign.



ABOVE The US column commanders (left to right) Brigadier-General Alfred Terry (1827-1890), Colonel John Gibbon (1827-1896), and Brigadier-General George Crook (1830-1890).

and most of the goods and foodstuffs available were of the worst quality.

The fact that Custer had revealed that Grant's brother had been part of the scheme enraged the President. He further suspected that Custer had been writing the damning articles which had appeared in the *New York Herald* denouncing corruption in the Indian Department.

Grant immediately stripped Custer of command of the Army's punitive expedition in the West and ordered him to remain in Washington. Once again, Custer's volatility had landed him in hot water.

He was distraught. He waited for hours in the anterooms of the White House, where President Grant refused to see him. He implored old army friends and politicians to intercede on his behalf: to no avail.

In frustration, he left Washington for Army headquarters in Chicago, only to be arrested and ordered back to Washington. But Custer instead rushed to St Paul, Minnesota, to appeal to Brigadier-General Alfred Terry, who had replaced Custer as commander of the punitive expedition.

Terry was a former lawyer who had decided to remain in the Army after the Civil War, and whose sole exposure to the West had been as a participant in the Fort Laramie Treaty of 1868. He was eager to have the experienced and aggressive Custer in his command, and added his entreaties to those of Generals Sheridan and Sherman. Grant finally relented, but only on condition that Custer remain subordinate to Terry.

CUSTER AT THE LITTLE BIGHORN

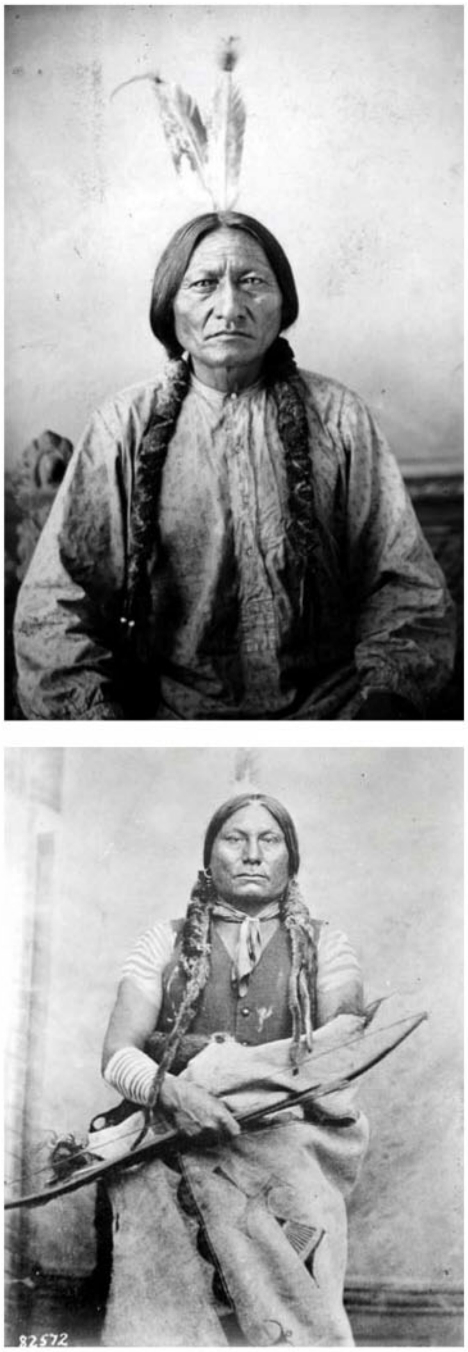
BACK IN THE SADDLE

Overjoyed to be back in the saddle, Custer lost no time in rejoining the 7th Cavalry. It was a relieved homecoming where he was surrounded by friends and family. Also in the regiment were his brother Tom, a captain twice awarded the Medal of Honor for actions in the Civil War; his brother Boston, working as a civilian packer for the outfit; a young cousin 'Autie' Reed, visiting for the summer; and Lieutenant Thomas Calhoun, Custer's brother-in-law.

But Custer's overpowering personality was not universally appreciated, and the officer corps of the 7th Cavalry was divided into pro- and anti-Custer factions. Leading the anti-Custer faction was Captain Frederick Benteen, who had disliked his commanding officer from their first meeting.

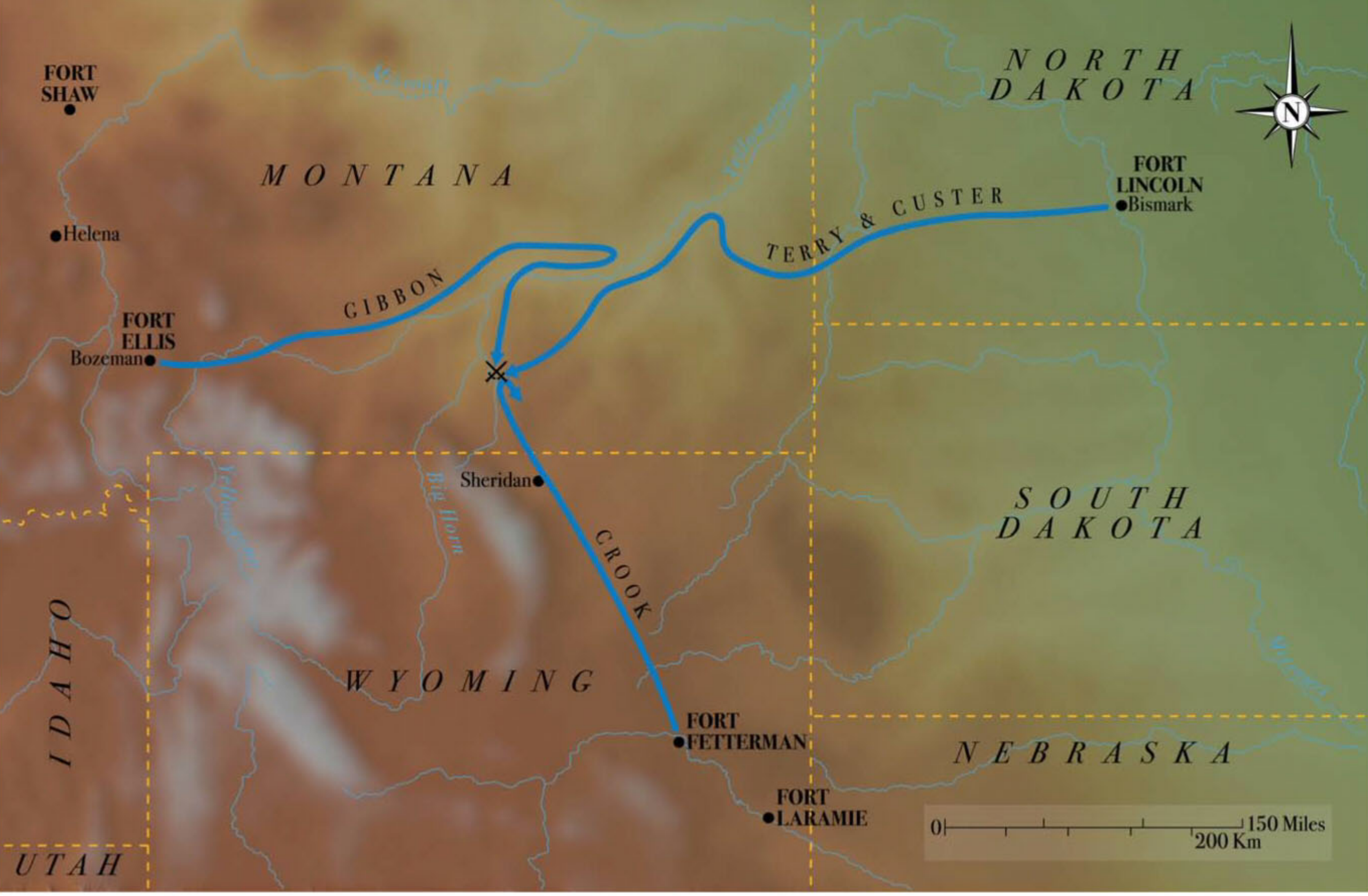
It was a dislike which had, over a period of 16 years, grown into a bitter hatred on Benteen's part. The captain's intense resentment of his commanding officer may well have played a role in the final act of their relationship.

The column which marched west from Fort Abraham Lincoln, Nebraska, was part of a three-pronged assault on the renegade tribes. The 'Centennial Campaign' – as it was now known – was to comprise three columns. That from Fort Abraham Lincoln, the 'Dakota Column', was led west by General Terry and included Custer and the 7th Cavalry. Another from Fort Ellis, »



Native American leaders: Sitting Bull (1831-1890) **[CENTRE RIGHT]**, and Gall (*c.*1840-1894) **[RIGHT]**.

Image: US National Archives and Records Administration


NORTH DAKOTA
FORT SHAW
MONTANA
Missouri
Yellowstone
FORT LINCOLN
Bismark
TERRY & CUSTER
Helena
GIBBON
FORT ELLIS
Bozeman
Sheridan
Big Horn
Yellowstone
SOUTH DAKOTA
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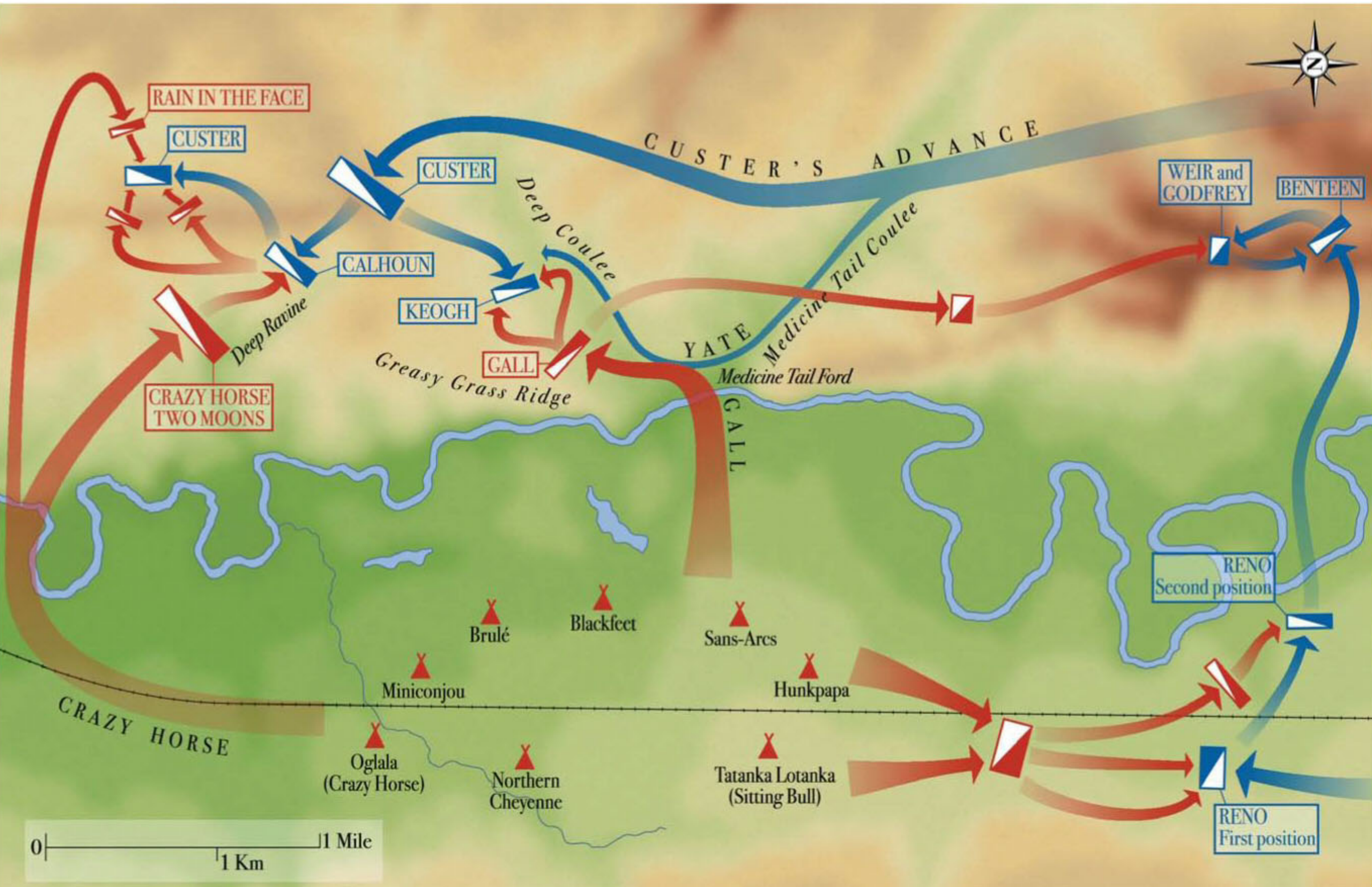

N
RAIN IN THE FACE
CUSTER
CUSTER
CUSTER'S ADVANCE
WEIR and GODFREY
BENTEEN
Deep Coulee
Medicine Tail Coulee
CALHOUN
KEOGH
Deep Ravine
YATE
GALL
Greasy Grass Ridge
Medicine Tail Ford
CRAZY HORSE TWO MOONS
GALL
RENO Second position
Brulé
Blackfeet
Sans-Arcs
Miniconjou
Hunkpapa
CRAZY HORSE
Oglala (Crazy Horse)
Northern Cheyenne
Tatanka Lotanka (Sitting Bull)
RENO First position
0
1 Mile
1 Km

LEFT Map showing the three-pronged convergence on the Black Hills during the Little Bighorn campaign of 1876.
BELOW LEFT Plan showing the principal movements and deployments in relation to the Sioux encampment at the Battle of the Little Bighorn, 25 June 1876.

the 'Montana Column', headed east, was led by Colonel John Gibbon. The third, departing from Fort Fetterman and moving north, was led by General George Crook.

The plan was for the three units to converge on the consolidated Lakota groups, which were under the influence of the taciturn but pugnacious Sitting Bull. The US commanders were supremely confident of their ability to subdue the tribes, with Crook commanding over 1,300 men, Gibbon 723 men, and Terry/Custer 652 men. The men were well mounted and provided with abundant rations and ammunition. All were certain they would prevail.

DIVIDED FORCES

The major drawback was, of course, the distance that separated the three forces. With hundreds of miles between them, the columns were subject to sketchy communications, and they had only a general idea of when and where they would be converging.

Their intelligence, though tentative at best, estimated the strength of the opposition at no more than 800 to 1,000 effective warriors.

Knowing the tendency of the Indians to decline battle unless cornered, the American forces' main concern was that the hostiles would break into disparate bands and scatter, making them far harder to corral. This could prove to be a long and frustrating summer.

Crook's column would be the first to make contact, in a fierce battle along Rosebud Creek near the present-day border between Wyoming and Montana. On 17 June 1876, Crook's 1,300 men had halted their movement north and were resting along the banks of the creek when nearly 1,000 Lakota and Cheyenne warriors fell on the unsuspecting whites.

> Custer changed his plans: they would close with and engage the enemy as quickly as possible.

It was only through the valiant efforts of Crook's Shoshone and Crow Indian scouts that the soldiers were afforded enough time to respond to the unexpected attack. A brutal conflict ensued, see-sawing across the battlefield for six hours.

The Cheyenne and Lakota eventually withdrew, leaving the field to Crook, who claimed a victory – though this was little more than an effort at saving face.

Each side lost fewer than three dozen men, though exact numbers, especially for the Indians, remain elusive. The main significance of the combat is that Crook elected to remain in place, resting and regrouping his battered command. Surprisingly, he made no effort to inform Terry's other converging columns of the willingness of the Cheyenne and Lakota to take on regular troops in a prolonged pitched battle.

BELOW Red Horse's depiction of a Sioux attack at the Battle of the Little Bighorn. Graphite, coloured pencil, and ink; 1881.

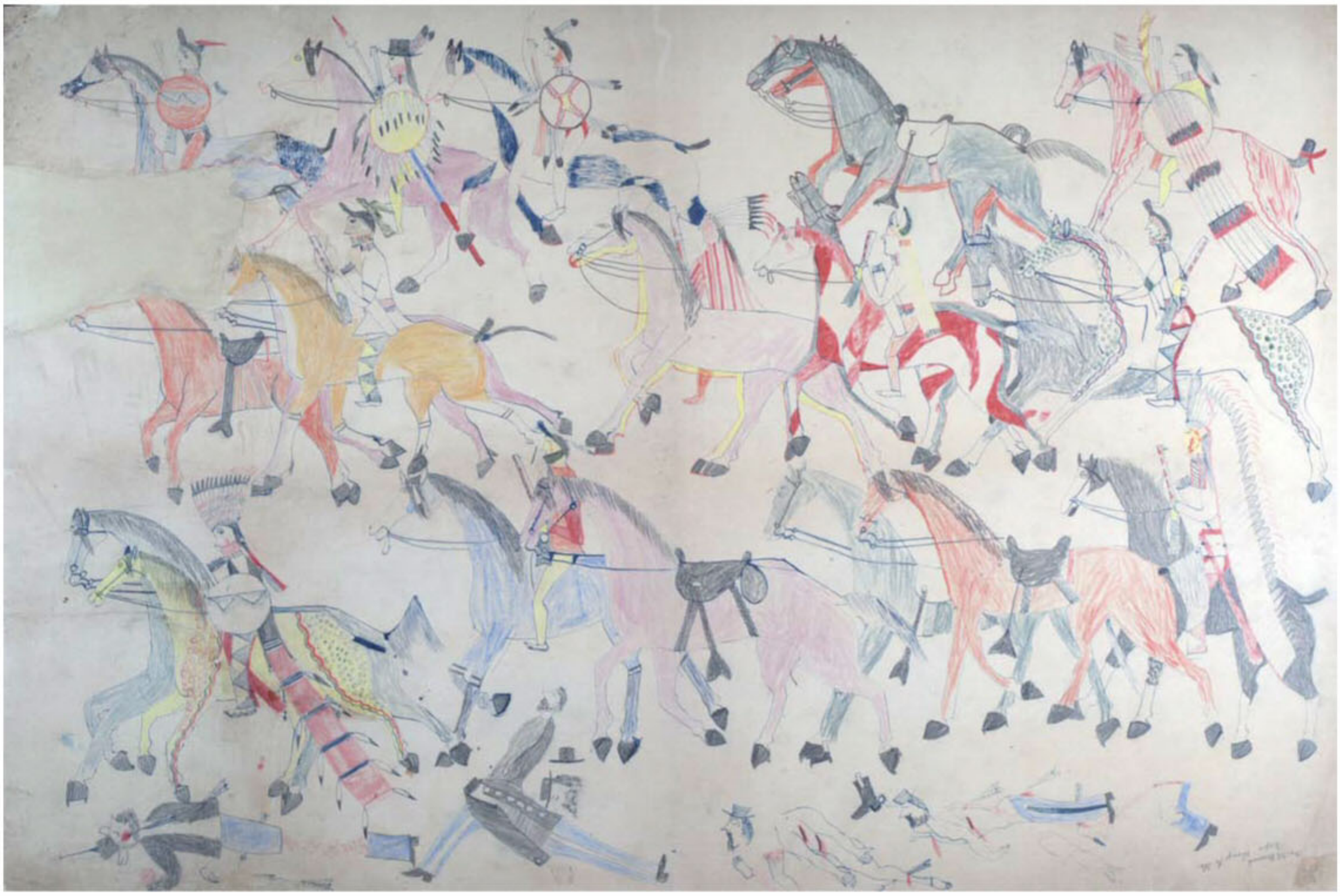


Image: National Anthropological Archives, Smithsonian Institution, Department of Anthropology. Accession no. 08570700

Maps: Ian Bull

WEAPONS

Various weapons were deployed at the Little Bighorn. Many US officers had personal weapons such as preferred sporting rifles and revolvers, and some of the scouts carried shotguns. But the 7th Cavalry's standard armament was the Trapdoor Springfield .45 calibre carbine and the .45 calibre Colt revolver.

The Trapdoor was single-shot, but had a long range of up to 800 yards, with significant stopping-power. Similarly, the Colt revolver packed a powerful punch at close range.

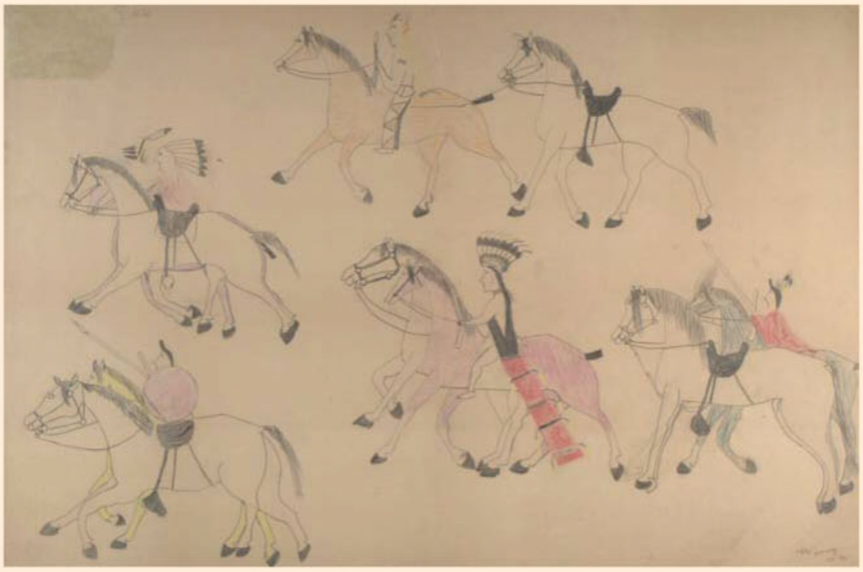
Ammunition, however, was problematic in that the average trooper was allotted 100 rounds of carbine ammunition and 24 rounds for the revolver. This was carried on a canvas looped belt holding 36 rounds, with the remainder in saddlebags. Theoretically, an additional 50 rounds per man were carried in boxes strapped to pack-mules.

The usual method of engagement called for troopers to dismount, with every fifth soldier designated to stand behind the firing-line holding the horses for four of his comrades. With the tactics necessitated at Little Bighorn, the noise, dust, gunfire, and confusion of close combat unnerved the horses and made them virtually uncontrollable. Thus many mounts bolted, taking with them much of the available ammunition.

Further complicating our understanding of the engagement is the issue of marksmanship and fire discipline – or the lack thereof. In consolidated positions and operating from shallow scrapes or from behind dead horses, the troops under Reno and Benteen were able to discourage the attackers from closing in, and avoided being overrun.

Custer's immediate command did not have these advantages. Based on their previous experiences with fighting Indians, Custer and his officers were not expecting the fierce resistance they met. Assuming that offensive action was the ideal way of taking on their adversaries, they opted to continue the attack.

As a result, the five companies of this wing remained spread out over a wider area, and in terrain that did not lend itself to providing mutual support. Thus, as the native warriors swarmed up the slopes, the individual fighting positions, widely separated and isolated by clouds of dust and gunsmoke, were quickly overrun.



ABOVE Many of Red Horse's drawings show Sioux warriors carrying firearms as well as bows, spears, and tomahawks. Graphite, coloured pencil, and ink; 1881.

INDIAN FIREARMS

It might be assumed that the Lakota and Cheyenne were limited to their traditional weapons of bows, arrows, lances, war clubs, tomahawks, and skinning knives; and these were, in fact, in general use. However, many of the warriors were certainly better equipped and, as revealed by archaeological investigation, were armed with a number of firearms, some of them quite advanced.

We now know that, in addition to primitive trade muskets and cap-and-ball rifles, the Lakota and Cheyenne carried a wide variety of sophisticated weapons, including Spencer repeating rifles, Henry repeating rifles, Winchester Model 1866 repeaters, and Colt and Smith & Wesson revolvers.

Archaeologists have positively identified over 370 individual firearms, in addition to the Cavalry's standard-issue weapons. It appears that the 7th Cavalry was not only outnumbered but outgunned as well.

What might be an interesting counterpoint to the US Army's experience at Little Bighorn is the British Army's experience in South Africa only three years later. In January 1879, a British expeditionary force under Lord Chelmsford was surprised by a massive assault by Zulu impis at Isandlwana. Utilising their hallmark tactic of head, horns, and loins formation, the estimated 15,000 Zulu warriors attacked a British column of over 1,800 men, putting them to rout and killing more than 1,300.

However, at the nearby outpost of Rorke's Drift, a mere 139 British troops held out successfully against successive assaults by a force of approximately 4,500 Zulu warriors, inflicting severe casualties on the native attackers. In this engagement, the 24th Foot suffered but 17 men killed in action and ten wounded, while the Zulu attackers are believed to have lost more than 500 men.

Thus Reno's Hill and Rorke's Drift may provide instructive counterpoints to Last Stand Hill and Isandlwana. In combat, discipline, firepower, and intelligent leadership proved to be the trump card.

Image: National Anthropological Archives, Smithsonian Institution, Department of Anthropology. Accession no. 08571100

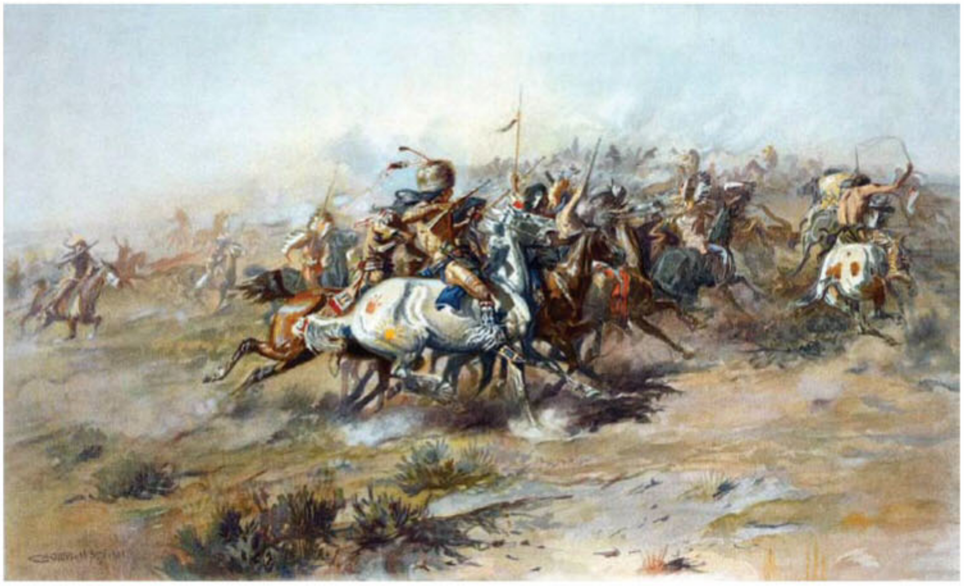


Image: Library of Congress

ABOVE Charles Marrion Russell's 1903 painting of Sioux warriors at the Little Bighorn.

A FATAL DECISION

A week after Crook's setback on the Rosebud, somewhere to the north, Custer's column was moving inexorably towards its date with destiny. In early June, Terry's column effectively linked up with that of Gibbon at the mouth of Rosebud Creek, and, believing Crook to be moving north towards them, proceeded west, hoping to catch the hostiles between the two forces.

Terry detached Custer and his 7th Cavalry as a 'reconnaissance in force', instructing them to move south and west, thereby catching the unwary Lakota between three converging columns.

In Terry's mind, the three columns would probably converge on the Little Bighorn on the 26 or 27 June. Custer's mission was such that he was allowed considerable latitude in his movements. While outlining his proposed course of action, Terry was somewhat vague in his written orders to Custer, saying in part:

> *It is, of course, impossible to give you any definite instructions in regard to this movement, and were it not impossible to do so, the Department Commander places too much confidence in your zeal, energy, and ability to wish to impose upon you precise orders which might hamper your action when nearly in contact with the enemy.*

This was a most unfortunate choice of words, for Custer, delighted to be cut loose with an independent command, quickly dashed off with the probable intention of being the first on the scene of action. As Custer rode off waving his hat, Gibbon laughingly called after him, 'Now, Custer, don't be greedy! Wait for us!', to which Custer, also laughing, replied, 'No, I will not!'

'MORE SIOUX THAN YOU HAVE BULLETS!'

Two days after leaving the main column, Custer's scouts reported to him that they had discovered evidence of a large trail made by the movement of a hostile camp. This was exactly the evidence for which they had been searching.

Custer turned his column and began moving due west. His command now consisted of roughly 600 men, and he had never known the Indians to voluntarily stand up in a fight against a determined enemy, especially when their numbers were roughly equal.

From the accounts of those who survived the coming engagement we have learned that Custer's intention was to locate and reconnoitre the enemy village and launch his attack on 26 June, which was the date on which Terry and Gibbon expected to be in the valley of the Little Bighorn. »

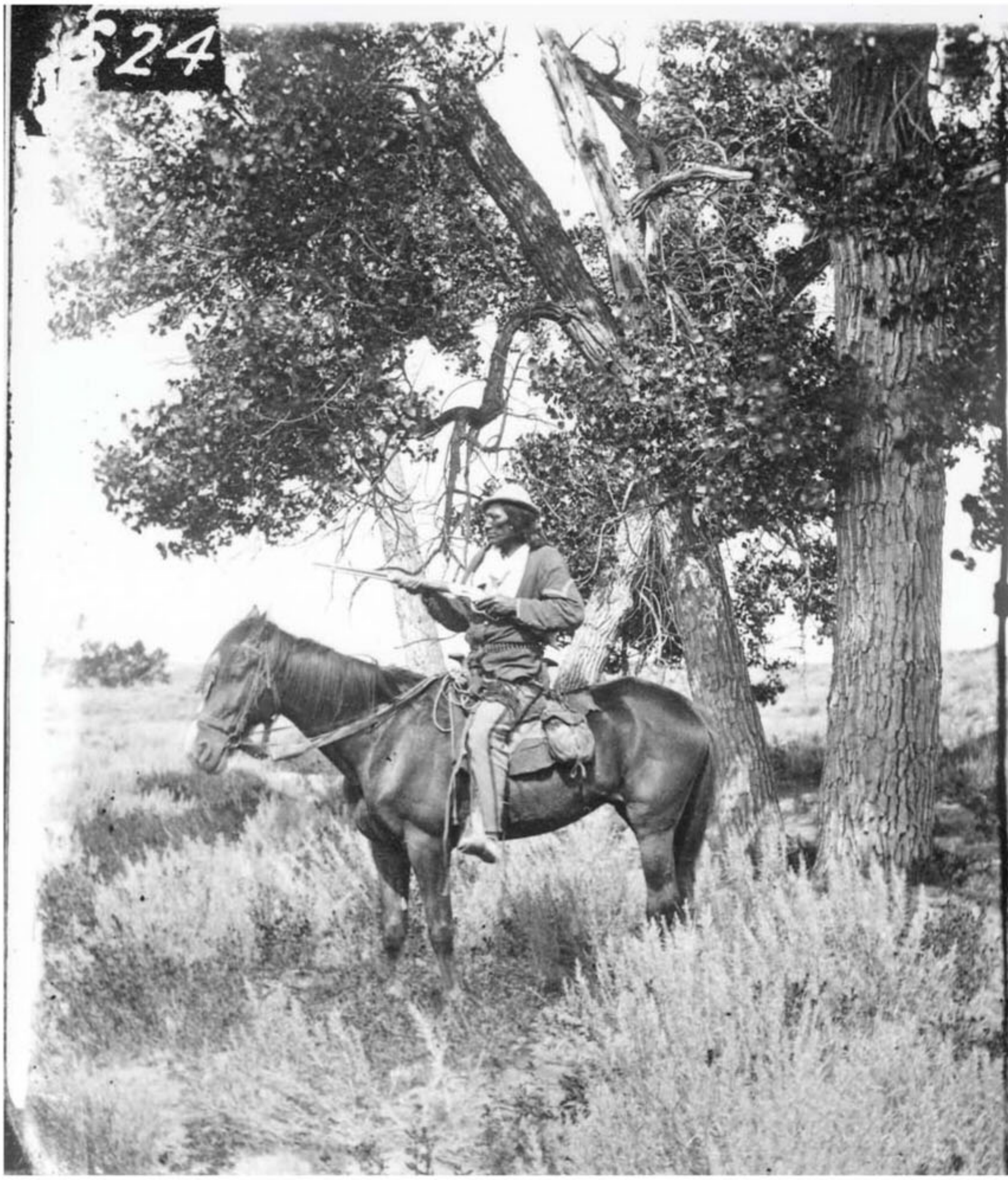
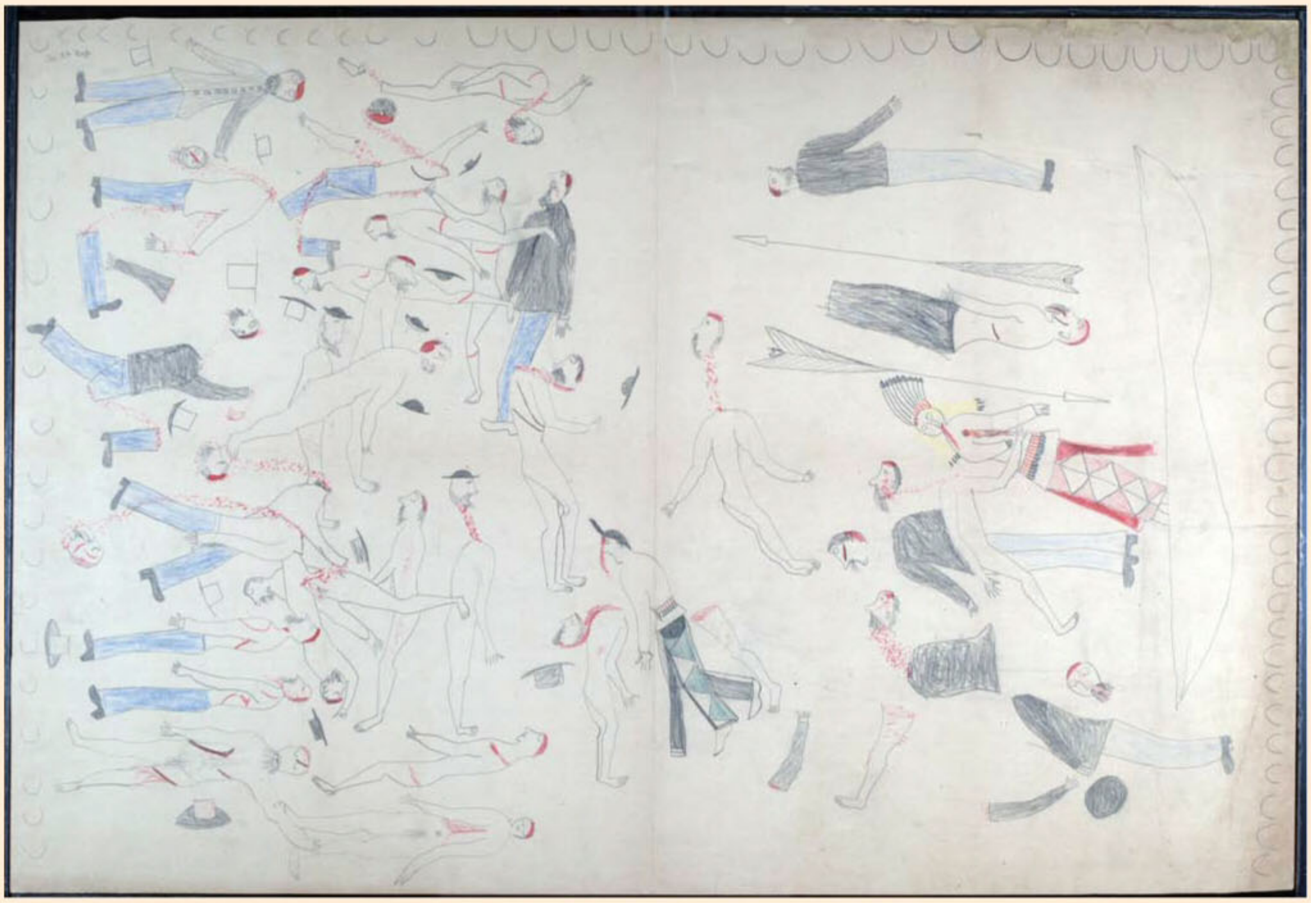


Image: US National Archives and Records Administration

RIGHT Bloody Knife, Custer's scout, during the Yellowstone Expedition, 1873.

CASUALTIES



ABOVE One of Red Horse's drawings showing the dead of Little Bighorn. Graphite, coloured pencil, and ink; 1881.

The five companies that accompanied Custer to Last Stand Hill were indeed wiped out. Among the soldiers, 16 officers and 252 enlisted men were killed in action. But there were other casualties not counted in this number.

These include Custer's brother Boston and nephew 'Autie' Reed; there was also scout Charley Reynolds, black scout Isaiah Dorman, reporter Mark Kellogg, half-breed scout Mitch Bouyer, as well as Arikara Indian scouts Bloody Knife, Bob-Tailed Bull, and Little Brave.

In addition, there were a number of Indian scouts who were declared 'missing in action', and it is impossible to know if they were killed in the fight, badly wounded and left to die, or simply went home. These would include White Cloud, White Eagle, Good Face, Bear-Come-Out, and Bear-Running-in-Timber.

It is more difficult to determine the numbers of Lakota and Cheyenne killed in action or died of wounds. The Native American participants did not keep records as we would understand them. Events and participants were more likely to be recorded on lodge skins, as 'winter counts', or related to interviewers after the fact or on the pages of 'ledger books', which were sketches done in pencil, ink, and watercolour on the pages of blank accounting books.

Thus our appreciation of specific casualties among the Lakota and Cheyenne is sketchy at best. We know, for example, that some individuals, such as Cheyenne warriors Lame White Man, Hump, Cut, Noisy Walking, and Whirlwind, were killed in action. Similarly, we have reports by Lakota participants noting the deaths of Swift Bear, Bear-with-Horns, Chased-by-Owl, Deeds, One Dog, Swift Bear, and White Bull. Our best estimates thus far indicate that Indian casualties were approximately 38 killed in action.

This seems a fairly low figure given the weapons of the 7th Cavalry – weapons liable to inflict catastrophic wounds on impact with human flesh and bone. An impact on a shoulder or thigh, for instance, would frequently inflict a wound which would ultimately prove fatal, especially given the Native Americans' rudimentary medical care, and the fact they had to evacuate the area, taking their wounded with them, over rough country on horse-drawn travois.

Given the nature of the terrain and the wide dispersion of the tribes, there is no way of knowing how many warriors later succumbed to wounds. It is quite likely, however, that the figure is fairly low. Judging from the accounts of Indian survivors of the fight, a great many of the soldiers' bullets were fired high – a natural tendency of soldiers in combat, especially when under heavy pressure. Several Indians later recounted how volleys of the troopers' carbines ripped open the tops of the teepees. Unnerving, but hardly dangerous to the inhabitants.

Image: National Anthropological Archives, Smithsonian Institution, Department of Anthropology. Accession no. 08570400

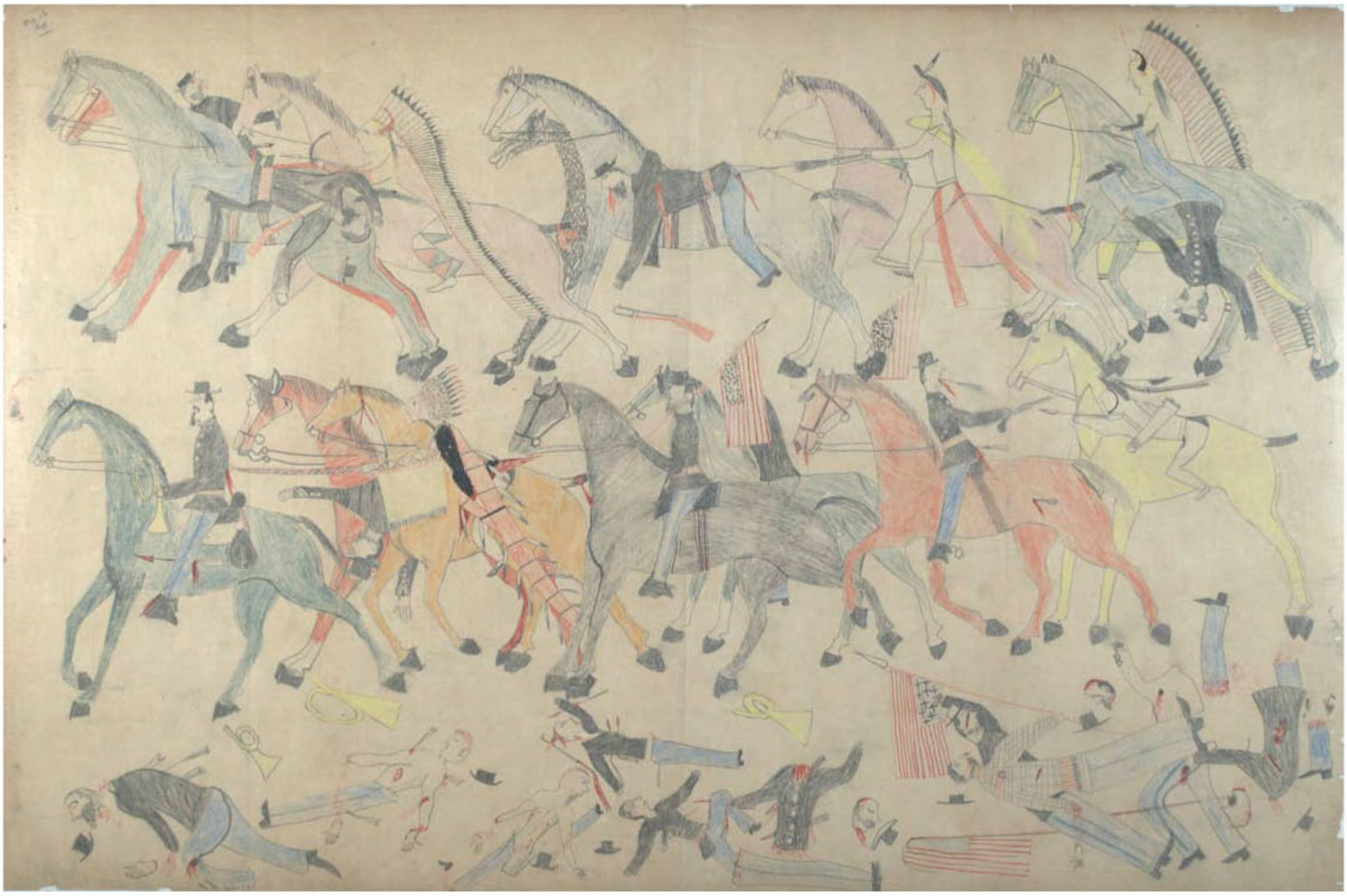


Image: National Anthropological Archives, Smithsonian Institution, Department of Anthropology. Accession no. 08569200.

ABOVE Red Horse's depiction of the destruction of Custer's command at the Battle of the Little Bighorn. Graphite, coloured pencil, and ink; 1881.

As we now know, events did not allow this plan to come to fruition. Custer pushed his troops hard, and by the evening of 24 June they were exhausted and saddle-sore. They halted with the intention of doing their reconnaissance the next day, while the bulk of the force rested and prepared for the coming fight.

At dawn on the following morning, Custer's Crow and Arikara Indian scouts climbed a rocky promontory known as the Crow's Nest and spied on the valley below. They were shocked. Custer climbed up to them, but neither he nor his chief of scouts, Lieutenant Varnum, could see what the Indian scouts claimed when they pointed up the valley and said, 'There are more Sioux than you have bullets!'

At about the same time, the Indian scouts spotted a group of Indians who had departed their camp and were moving in the distance. The scouts attempted, without luck, to intercept them, and Custer feared that his column's movement had been spotted by the enemy.

There was no time to be lost. For, if the past was any indicator, the hostiles would quickly break camp and scatter in hundreds of directions. The campaign would then drag out interminably.

Despite the fact that his men were still tired and travel-weary, Custer changed his plans. This would not be a day of rest and reconnaissance as originally envisioned. They would close with and engage the enemy as quickly as possible. If things went well, they could isolate the non-combatants and force the warriors to lay down their arms before Terry and Gibbon appeared.

> Custer died, very probably on top of Last Stand Hill, surrounded by the remnants of his command.

CUSTER'S ATTACK

The 7th Cavalry was immediately divided into three separate columns. Three companies were placed under Major Reno, three under Captain Benteen, while five were retained under Custer's immediate command.

Reno was ordered to move up the valley along the Little Bighorn River to attack the lower end of the village, while Benteen screened the valley to the south to ensure none of the hostiles were able to escape.

Custer took the remaining companies and skirted to the north of the Little Bighorn, apparently intending to encircle the Indians. Before the units separated, Custer was approached by his favourite Indian scout, an Arikara named Bloody Knife. The scout was overcome by a sense of foreboding on the coming engagement. Looking at Custer, he pronounced solemnly, 'You and I are going home tonight by a road we do not know.'

Major Reno's squadron rode up the valley, where it spread out and dismounted to »

> Dug in and hunkered down, the soldiers forced their assailants to abandon their war ponies and rely on bows, arrows, and firearms. With the Sioux unable to get to close quarters, the fight degenerated into a desultory affair of long-range sniping.

begin firing into the lower end of the village. The reaction was immediate and savage, as the Indians boiled out of their lodges in a spirited counterattack.

As the engagement developed, Reno's men could see Custer's squadron on the bluffs above the river galloping towards the upper end of the village. Sitting on his horse next to Major Reno, Arikara scout Bloody Knife was struck in the head by a Lakota bullet. His brains scattered all over Reno's face and uniform.

Meanwhile, Captain Benteen had abandoned what he termed 'valley hunting', and started back towards the river.

Unnerved by Bloody Knife's death, Major Reno was unsure what his next action should be.

In the village, resistance had stiffened and a major counterattack developed, urged on by Sitting Bull and led by ferocious war-chiefs Crazy Horse and Gall. As the Indian attack intensified, Reno decided he was outmatched and ordered a hasty withdrawal under fire, crossing the river and scrambling up the bluffs on the other side.

While the unit had to this point sustained few casualties, the decision to retreat was disastrous, with 38 men killed outright and more wounded and missing. Desperate, and still besieged by outraged Cheyenne and Lakota, Reno's command dug shallow holes and fired as rapidly as possible into the attacking hordes.

THE LAST STAND

We can only surmise that it was at about this time that Custer had his first view of the village, which was immense. His command was vastly outnumbered and already decisively engaged. With Reno under fire, there was no option but to continue the attack.

Custer sent a hurried message off to his third squadron: 'Benteen, come on. Big village. Be quick. Bring packs.' The packs he referred to were boxes of extra ammunition, which were loaded on the pack train of mules.

As best we can determine, Custer hoped to hit the rear of the Indian encampment, threatening the area in which he supposed the women and children would be gathered. If they felt their families threatened, the warriors would very likely call off their attack in favour of moving their families out of the way or negotiating a settlement.

What Custer had not anticipated was the size of the encampment. He had not managed to encircle the village as intended, but hit the centre of it, and thousands of enraged Lakota, Cheyenne, and Arapaho surged across the river in a fierce counterattack.

Meanwhile, Benteen had finally come up with Reno, to find his companies dug in on the hills above the river and fighting to survive. Reno pleaded with the new arrivals saying, 'Benteen, for God's sake help me. I've lost half my command.'

Disregarding his commander's hastily scrawled entreaty to 'come quick', Benteen ordered his troops to halt and dig in alongside Reno's beleaguered force. A desperate fight ensued, with the troopers holding their positions against repeated assaults.

We will never know exactly what happened to Custer's five companies, but thanks to the work of archaeologists and forensic anthropologists we now have a better understanding of where the remaining companies of the 7th Cavalry moved and how they defended themselves.

It appears that Companies E and F under Captain Yates swung down the slopes of the bluffs to block Indian attempts to use a ford in the river. At the same time, Lieutenant Calhoun and Captain Myles Keogh established skirmish lines to block Indian charges while Custer attempted to close with the fleeing non-combatants. He needed just a little space and time to change the dynamic of the battlefield, and Keogh, Calhoun, and Yates tried to buy him that time.

But all came to naught as hordes of warriors swarmed up the slopes and the soldiers' positions collapsed on themselves. There were no survivors. Custer died, very probably on top of Last Stand Hill, surrounded by the remnants of his command.

AFTERMATH

As the last of Custer's immediate command died in the swirling dust and gunsmoke, the rest of the 7th Cavalry remained on a hilltop several hundred yards distant. Again and again, furious warriors assaulted the entrenched positions, approaching on foot as mounted charges were not possible in the face of stiff resistance.

Dug in and hunkered down, the soldiers forced their assailants to abandon their war ponies and rely on bows, arrows, and firearms. With the Sioux unable to get to close quarters, the fight degenerated into a desultory affair of long-range sniping.

Meanwhile, the collected villages hurriedly packed up and moved away, scattering into small bands and family groups. As the sun set on the 26 June, the largest gathering of Native Americans in 19th-century history dissolved into the surrounding countryside.

News of the disaster on Little Bighorn did not reach Washington until the 4 July, in the midst of the nation's celebrations of independence. People were stunned.

The Government responded with a vengeance, and by May 1877 the Lakota and Cheyenne had been crushed. Sitting Bull had fled to Canada, and Crazy Horse was in custody. The great Sioux war was over, and George Armstrong Custer had passed into legend. •

Fred Chiaventone is a retired US cavalry officer who now works as a military historian and writer. The ledger drawings by Red Horse featured in this article are on show at the Cantor Arts Center at Stanford University until 9 May 2016. www.museum.stanford.edu/news_room/red-horse.htm

FURTHER READING

James Donovan, *A Terrible Glory: Custer and the Little Bighorn – the last great battle of the American West*, Little, Brown & Company, 2008.

John S Gray, *The Centennial Campaign: the Sioux War of 1876*, University of Oklahoma Press, 1988.

Robert Utley, *Cavalier in Buckskin: George Armstrong Custer and the Western Military Frontier*, University of Oklahoma Press, 1988.

Douglas Scott, *Archaeological Perspectives on the Battle of the Little Bighorn*, University of Oklahoma Press, 2000.

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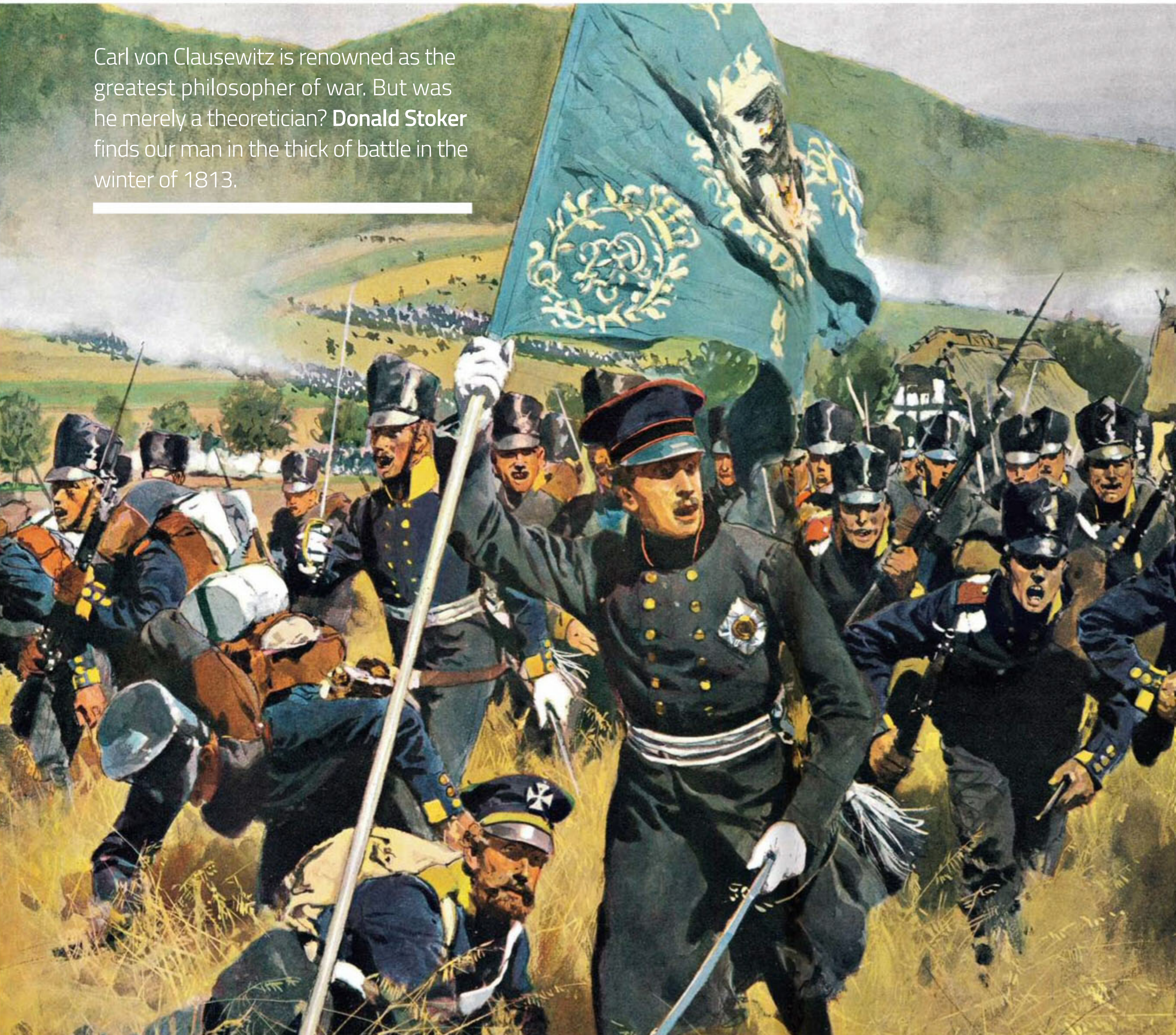
Clausewitz's lost battle:

SEHESTEDT

10 DECEMBER 1813

Carl von Clausewitz is renowned as the greatest philosopher of war. But was he merely a theoretician? **Donald Stoker** finds our man in the thick of battle in the winter of 1813.



BELOW [MAIN IMAGE] Prussian infantry in action in 1813. **[INSET]** Carl von Clausewitz (1780-1831), the great theorist of war, was among them.

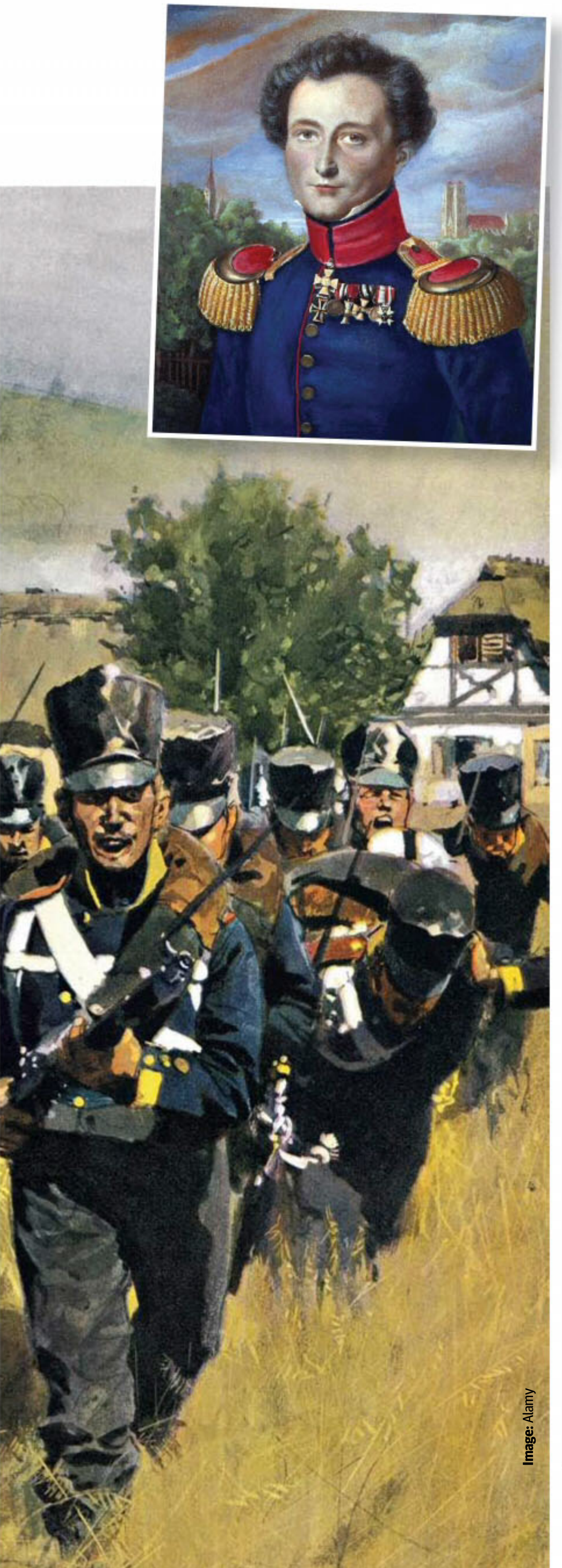


Image: Alamy

One false piece of conventional wisdom is that the great Prussian military theorist and historian Carl von Clausewitz was never more than a staff officer and military intellectual. The truth is more complex.

Clausewitz was also an ambitious professional solider who fought in five wars during the French Revolutionary and Napoleonic era, participating in at least three dozen battles, which included Auerstedt and Borodino.

He became a prisoner of war in 1806, took a bayonet to the side of the head at Lützen in 1813, and French cavalry almost killed him during the Prussian retreat from Ligny in 1815.

But it is for *On War* that we know him – and rightly so, as it is widely considered the best and most important work of military theory ever written. But blood as well as ink were spilt in its creation. And in most of his battles Clausewitz was on the losing side.

One of the contentious arguments in his magnum opus is his scepticism as to the reliability of intelligence gathered about the enemy, intelligence meaning ‘every sort of information about the enemy and his country – the basis, in short, of our own plans and operations’.

Most of the information those fighting wars receive is, he insists, ‘unreliable and transient’. Further,

> *Many intelligence reports in war are contradictory; even more are false, and most are uncertain… and the effect is to multiply lies and inaccuracies.*

The ‘general unreliability of all information’, he says, adds to the uncertainty constantly present in war. In other parts of *On War* he speaks of the necessity and utility of gathering information on the foe, but many pages glare with doubt.

It is difficult (and dangerous) to try to connect events in Clausewitz’s life with his theoretical concepts, but one should also not discount his military experience, as it lends a healthy dose of realism to his ideas.

In December 1813, in what is now northern Germany, on the banks of the Kiel canal, Clausewitz’s command fought a battle that forces us to consider the possibility of direct links between Clausewitz’s experiences and his ideas.

IN THE AFTERMATH OF LEIPZIG

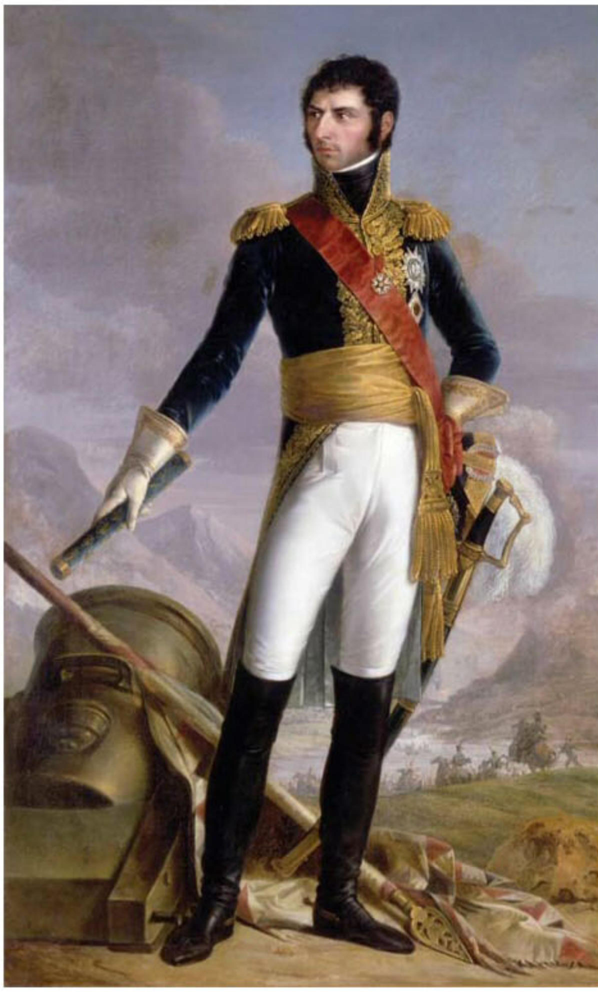
Napoleon Bonaparte’s defeat at Leipzig on 16-19 October 1813 reordered the military situation in Europe. The French position in central Europe collapsed, and the Coalition forces opposing the Emperor soon reached the Rhine.

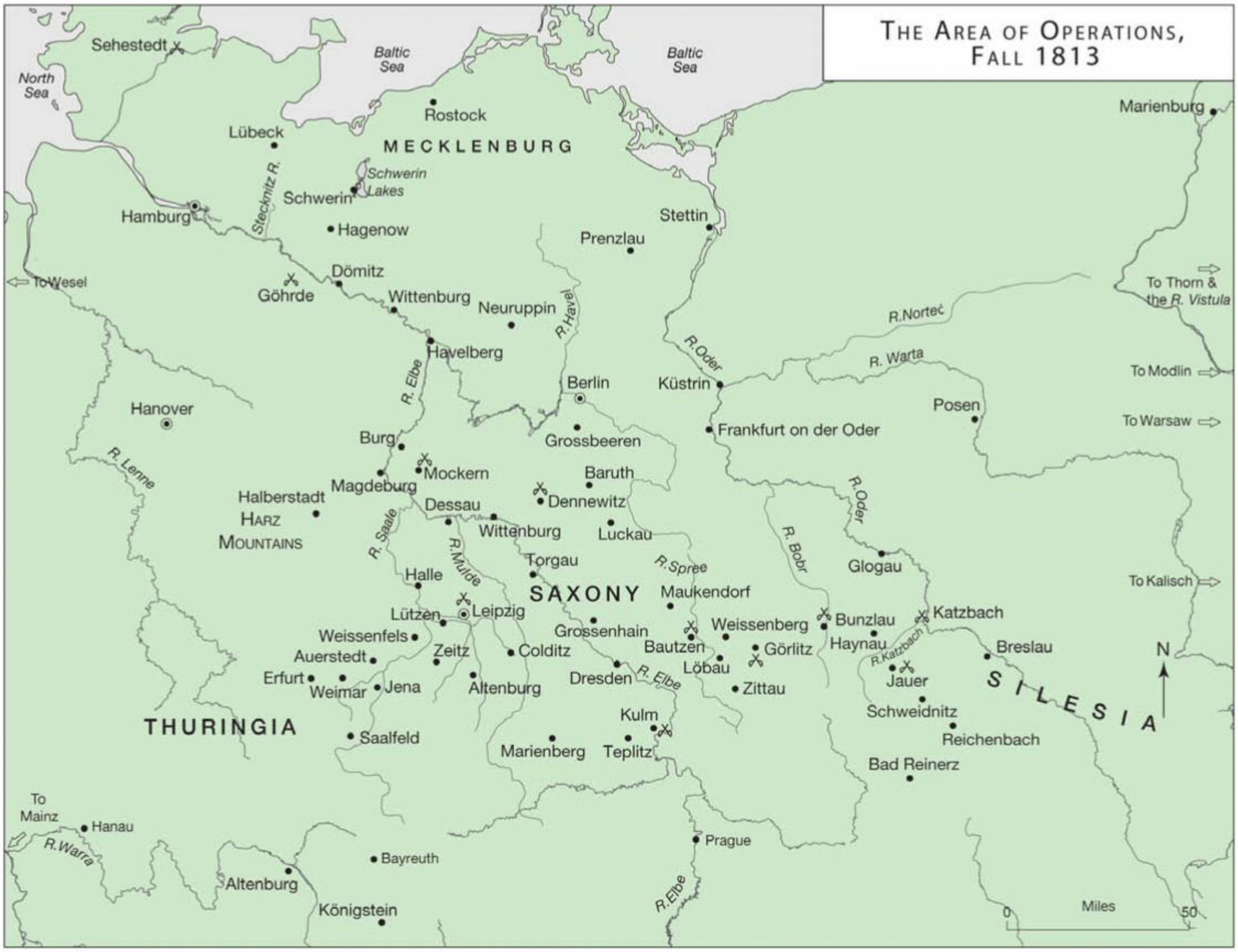
In early November, one of the Allied leaders, former French Marshal and now Swedish Crown Prince Jean Bernadotte, sent an aide to try to convince the Coalition command that it should attack French Marshal Louis-Nicolas Davout, who held the Hamburg area, and France’s Danish allies. He argued that this was not only necessary defensively, but would also hurry the conquest of French-occupied Holland.

Russia’s Czar Alexander replied with the plan that the Austrians and Prussians had devised: the Allies would move on Paris in several prongs. Wellington would push from Spain, Austria from Italy, the Prussians under Blücher from across the Rhine, Bernadotte via Holland.

Bernadotte was unhappy that no mention was made of Denmark and its possession Norway, which the Allies had promised him for bringing Sweden into the war. He argued that it was inexpedient to invade Holland without first dealing with the Danes.

BELOW Jean-Baptiste Jules Bernadotte (1763-1844), French revolutionary leader, Marshal of the Empire under Napoleon, and later King of Sweden. Having become Crown Prince of Sweden in 1810, he brought his new country into the alliance against his former master in 1813, and was then in command of the campaign in which Clausewitz participated that year.




THE AREA OF OPERATIONS, FALL 1813
Sehestedt
North Sea
Baltic Sea
Baltic Sea
Rostock
Lübeck
MECKLENBURG
Schwerin Lakes
Schwerin
Stecknitz R.
Hamburg
Hagenow
Stettin
Prenzlau
Marienburg
To Wesel
Dömitz
Göhrde
Wittenburg
Neuruppin
R. Havel
To Thorn & the R. Vistula
R. Noteć
R. Oder
Havelberg
R. Warta
To Modlin
R. Elbe
Berlin
Küstrin
Hanover
Posen
To Warsaw
Frankfurt on der Oder
Burg
Grossbeeren
R. Lenne
Mockern
Baruth
Magdeburg
Halberstadt
Dennewitz
R. Oder
Dessau
Harz Mountains
Wittenburg
Luckau
R. Saale
R. Bobr
R. Mulde
Torgau
R. Spree
Glogau
Halle
SAXONY
Maukendorf
To Kalisch
Lützen
Leipzig
Katzbach
Weissenfels
Grossenhain
Weissenberg
Bunzlau
Auerstedt
Zeitz
Colditz
Bautzen
Görlitz
Haynau
Breslau
R. Katzbach
Löbau
Erfurt
Weimar
Jena
Altenburg
Dresden
R. Elbe
Zittau
Jauer
N
SILESIA
Schweidnitz
Kulm
THURINGIA
Saalfeld
Reichenbach
Marienberg
Teplitz
Bad Reinerz
To Mainz
Hanau
R. Warra
Prague
Bayreuth
Altenburg
R. Elbe
Königstein
Miles
0
50

The armies began to move. But a few days later, the Allies bent and gave Bernadotte his string.

BERNADOTTE'S OFFENSIVE

Bernadotte is important to our story because Lieutenant-Colonel Carl von Clausewitz served under his command. Clausewitz was the quartermaster-general to a Russian-controlled corps composed of units from numerous lands. Count Ludwig Georg Thedel von Wallmoden-Gimborn led the force.

On 5 November, Clausewitz, as Wallmoden's quartermaster-general, was preparing his subordinates for the next phase of the war. The Napoleonic-era post of 'quartermaster-general' differed starkly from the modern view of a quartermaster as an officer concerned with supply. In Clausewitz's time, the quartermaster was the chief staff officer and second-in-command. Handling supplies and intelligence, planning the route of march, deploying the forces for battle – these and every other imaginable task – fell to the quartermaster-general.

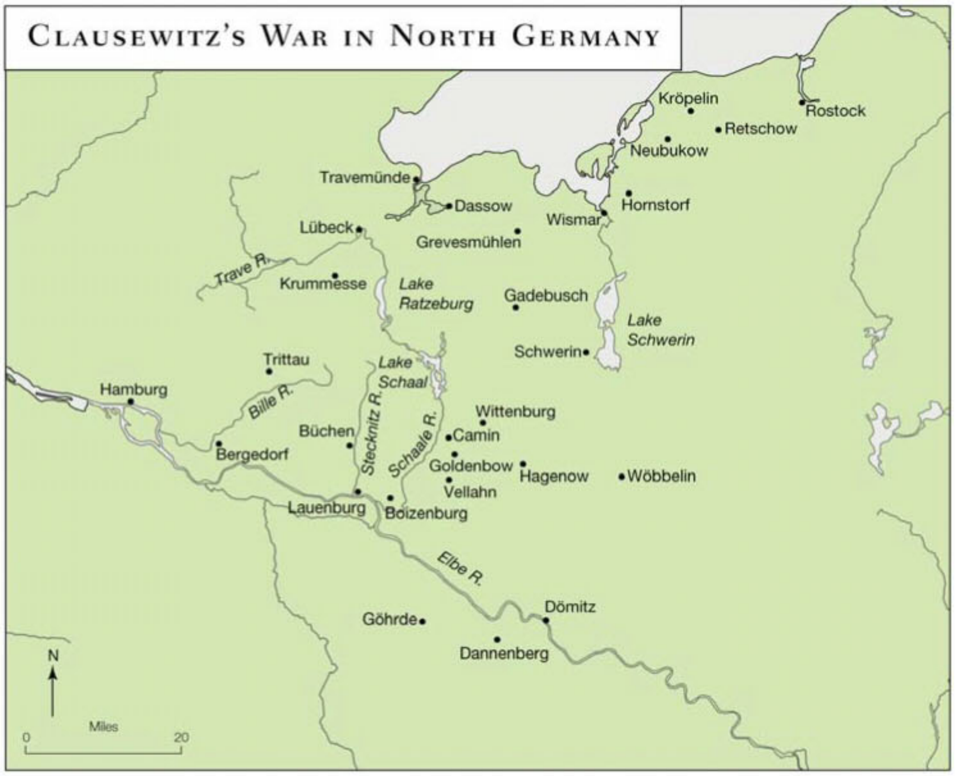
Bernadotte launched his Russian and Prussian forces into the Low Countries, while he marched to Hanover with his Swedish contingent. 'The intention shall be to cut off Marshal Davout from Holland and, in case he does not go over the Elbe,' Clausewitz wrote, 'to attack him in Holstein, from which it then would follow that the Crown Prince must cross the Elbe here at Dömitz.'

Wallmoden planned to push the various units of his own corps into the area bordering Hamburg on the south, as well as along the routes from Hamburg to Bremen. But Bernadotte soon changed this plan. 'Just now the Crown Prince has ordered that we should take our position between Wittenberg and Haguenau in order to await further orders,' Clausewitz wrote on 7 November – though a number of Wallmoden's units still moved against the environs of Hamburg from the south and along the Elbe.

DAVOUT'S REACTION

On 12 November, Davout abandoned his advance post at Ratzeburg and withdrew behind the Stecknitz. Soon, all his forces lay behind the river. Four days later, Bernadotte sent his army toward Denmark and went to lead it himself.

In most of his battles Clausewitz was on the losing side.


Clausewitz's War in North Germany

Kröpelin
Retschow
Rostock
Neubukow
Travemünde
Dassow
Wismar
Hornstorf
Lübeck
Grevesmühlen
Trave R.
Krummesse
Lake Ratzeburg
Gadebusch
Lake Schwerin
Schwerin
Trittau
Lake Schaal
Hamburg
Bille R.
Büchen
Stecknitz R.
Schaale R.
Wittenburg
Camin
Bergedorf
Goldenbow
Hagenow
Wöbbelin
Vellahn
Lauenburg
Boizenburg
Elbe R.
Dömitz
Göhrde
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He marched north with 60,000 men to join those already there. Mikhail Vorontsov's division crossed the Elbe at Boitzenburg. Others closely blockaded Hapt and Harburg near Hamburg. Part of Bernadotte's reason for taking such a significant force northward were the repeated warnings from Clausewitz's superior Wallmoden that their lone corps had no hope of taking Hamburg or dealing decisively with Davout.

Davout had been planning to stay on the Stecknitz River until it froze and ceased to serve as an effective obstacle. On 2 December, after the temperature fell, he suddenly abandoned the river, pulled his troops from all his posts between Mölln and Lauenburg, and retreated 30 miles eastward to his Hamburg defences.

The same day, the Swedish army concentrated at Mölln and Boitzenburg under Bernadotte, while Wallmoden's and Clausewitz's troops concentrated at Ratzeburg. Bernadotte arrived at Lübeck on 3 December, and told Wallmoden that he planned to invade Holstein and force a peace on Denmark.

The next day, Wallmoden's corps crossed the Stecknitz, and the entire Swedish army – 20,000 men – aimed at Lübeck on 4 December. Bernadotte pinned Davout in Hamburg with a Russian corps, and launched a two-pronged invasion of Holstein.

MARCHING ON THE DANES

Wallmoden's and Clausewitz's corps (which had 15,000-16,000 men in November) formed the left wing of the invasion; Bernadotte led the right.

The Crown Prince took Lübeck's surrender on 5 December, having allowed the garrison 24 hours to march away. Wallmoden's advance guard under Dörnberg had fought a small action at Siebenbäumen on 4 December. 'We march against Oldesloe in order to expel the Danes from the Trave; but they will probably not wait,' Clausewitz wrote to his wife Marie. 'Finally we break free from the damned Stecknitz.'

Clausewitz proved correct. Wallmoden's advance forces reached an empty Oldesloe on 6 December. They pushed on, north-east, deeper into Holstein, camping at Neumünster on 7 December, as Bernadotte's troops turned north for a parallel advance on Kiel.

Bernadotte ordered Wallmoden on to Rendsburg. He reached the Eider River on 8 December, and crossed an advance guard while putting out flank detachments to watch Kiel on his right and Rendsburg on his left. He sent artillery to shell the Rendsburg fortress, and seized the bridge at Cluvensik.

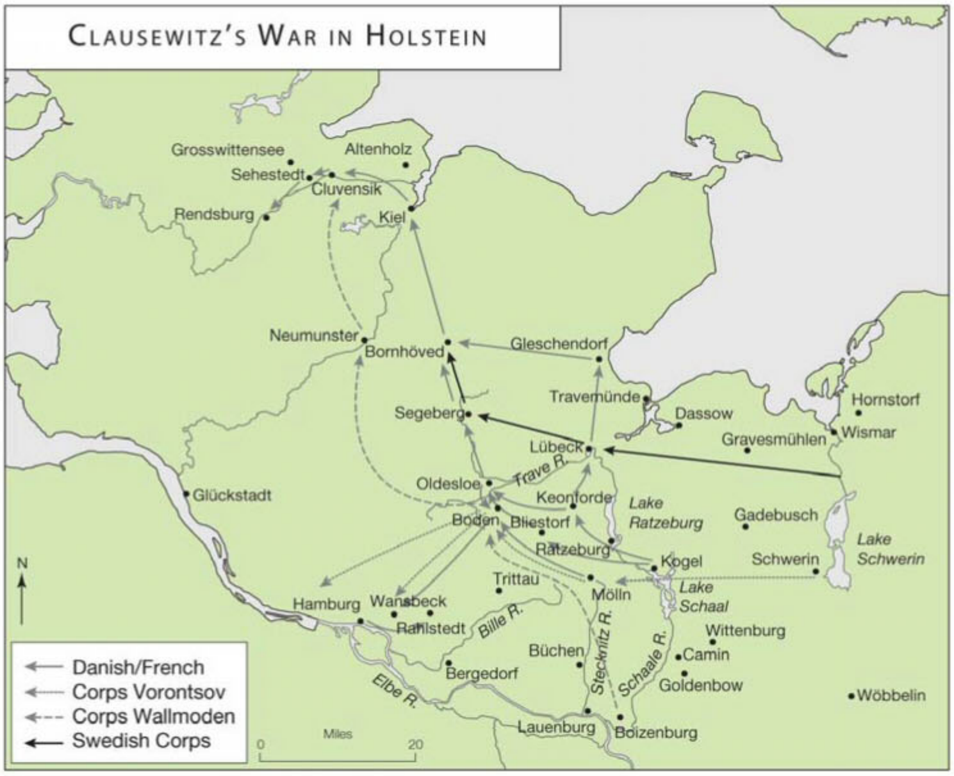
Clausewitz noted that only the 'unending efforts of the troops' marching through often-brutal terrain allowed Dörnberg's advance force to reach banks of the Eider on 9 December. He then pushed northward to Eckernförde, and got entangled with a Danish baggage train, which his men set about vigorously looting. Wallmoden and Clausewitz were now without the reconnaissance information that Dörnberg was supposed to provide.

ADVANCING IN THE DARK

What had sent Dörnberg north was a captured letter, one Wallmoden received on the evening of 9 December as his army camped at the Cluvensik bridge. The note revealed that the Danish forces in Kiel had marched out of the city at 7am that morning, heading north for Eckernförde.

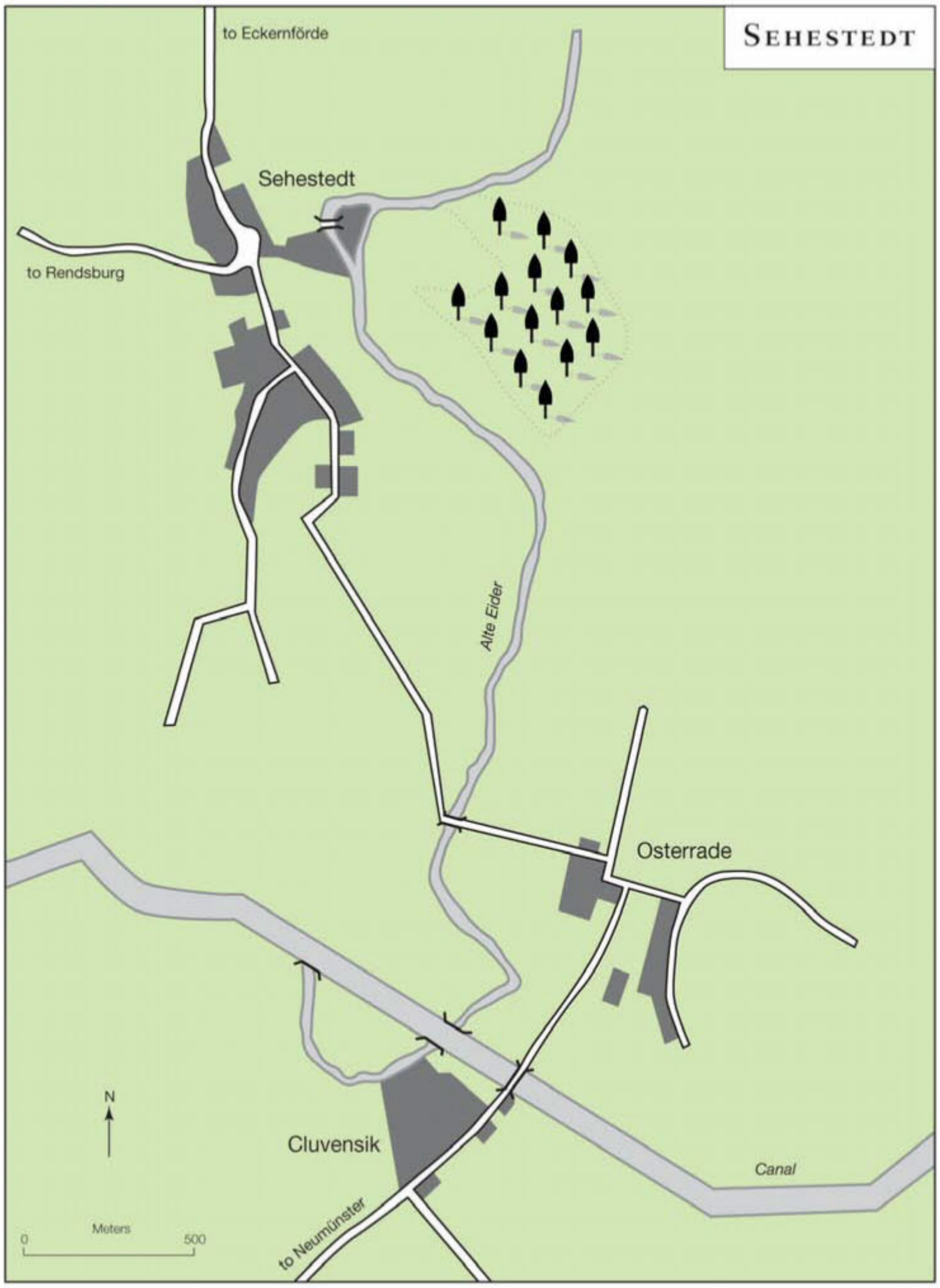
The next morning, Wallmoden's advanced force crossed the Cluvensik bridge, marched through Osterrade, crossed the bridge over the tiny Alte Eider, and passed through the village of Sehestedt on their way to Eckernförde, about eight and half miles to the north.

Sehestedt sat astride the road running from Rendsburg in the west to Kiel in the east. The »


Clausewitz's War in Holstein

Grosswittensee
Altenholz
Sehestedt
Cluvensik
Rendsburg
Kiel
Neumunster
Bornhöved
Gleschendorf
Travemünde
Hornstorf
Segeberg
Dassow
Wismar
Gravesmühlen
Lübeck
Trave R.
Oldesloe
Glückstadt
Keonforde
Lake Ratzeburg
Gadebusch
Boden
Bliestorf
Ratzeburg
Lake Schwerin
Kogel
Schwerin
Trittau
Mölln
Lake Schaal
Hamburg
Wansbeck
Rahlstedt
Bille R.
Wittenburg
Büchen
Stecknitz R.
Schaale R.
Camin
Bergedorf
Goldenbow
Wöbbelin
Elbe R.
Lauenburg
Boizenburg
N
Miles
0
20
Danish/French
Corps Vorontsov
Corps Wallmoden
Swedish Corps

Maps: Donald Stoker



Map: Donald Stoker

Hessen knew his men were cut off and exhausted; he feared his units would simply dissolve.

Alte Eider bordered its right. A few miles north were the village of Holtsee, and to the north-east was Lake Witten.

At eight o'clock, 9,000 Danish troops marched directly at Sehestedt from the north, arrayed for battle. 'All reports say that the Danes are going to Eckernförde and Schleswig,' Clausewitz wrote to his friend and mentor August Neidhardt von Gneisenau afterwards.

The Danes had left Kiel on 9 December, but headed west for Rendsburg, not north to Eckenförde. They camped that night at Gettorf, halfway between Kiel and Rendsburg. The next day they marched for Sehestedt.

RETREATING IN DESPERATION

Leading the Danes was Prince Frederick of Hessen. Unlike Clausewitz and Wallmoden, he had excellent intelligence regarding his enemy's situation. He was also desperate.

A British deserter from one of Wallmoden's Hussar units (Wallmoden's was a truly international force) revealed that Wallmoden had left Nordtoff on the morning of 8 December. By 9 December, the Danes knew the enemy was in Eckernförde and Cluvensik, that some of Dörnberg's men were at Gross-Wittensee north-west of Sehestedt, and that Wallmoden was in Sehestedt itself, cutting the road to Rendsburg.

Feeding the Danes' desperation was the presence of the Swedish army at Kiel behind them. Hessen knew they were cut off from all sides, and that his men were exhausted from their retreat from the Stecknitz; he feared his units would simply dissolve.

He also took the view that it was in the best interest of Denmark for him to reinforce the important fortress of Rendsburg, then held by only four weak battalions, something the enemy knew.

Hessen therefore resolved to march to Rendsburg and destroy anything blocking his path. He had 14 battalions and 12 squadrons of cavalry, a little more than 9,000 combatants.

FIRST CONTACT

The Danes overran some of Dörnberg's troops at Holtsee, about three miles north of Sehestedt, at roughly 7.30 on the morning of 10 December. Hessen sent some units to keep Dörnberg off his back, and deployed his forces to attack Sehestedt.

He moved in with a dispersed light infantry brigade in a skirmish line in his fore, supported by its battery, which was covered by an infantry battalion.

The skirmishers anchored their left on the Alte Eider and their right on the Habyer Moor. They slowly advanced against Sehestedt, supported by artillery on the left and right of the road. Behind them came the rest of the infantry of the first brigade in a tight attack column. Another brigade simultaneously came up the road, also in column. Hessen used his lancers to protect his line of retreat – just in case things went wrong.

Wallmoden stood outside Sehestedt with some of his adjutants, half an hour's march from the Cluvensik bridge, when the Danes appeared. Though surprised, he sent word for Dörnberg to return – quickly. 'In haste,' Clausewitz noted, 'they put a battalion into the village, but the bulk of their troops could not begin to arrive before noon.'

About 2,200 paces north of Sehestedt, the Danes hit some infantry and artillery that Wallmoden and Clausewitz had on a low height. They also began taking fire from one of Wallmoden's jäger battalions in the woods to Sehestedt's right across the Alte Eider. Hessen pushed both units back and drove on to Sehestedt.

THE DANISH ATTACK ON THE VILLAGE

As the Danes began their attack, Wallmoden's men could see that the enemy was getting stronger by bringing up and deploying more battalions north of the town. Wallmoden's lines soon stretched from the Alte Eider to the Hohenfelde road.

The Danes began shelling Sehestedt, then mounted an attack with an infantry column as Wallmoden's troops poured artillery fire into them. Hessen himself led a brigade into the maelstrom. The Allied forces to the left and west of Sehestedt were thrown into confusion. The Danish light infantry that had been supporting the attack now poured into Sehestedt.

Since most of Wallmoden's troops were strung out in march column when the attack began, they were slow to come up. The Danes, who had been in a denser formation – and ready for a fight when they came down the road – were able to throw troops into the town more quickly.

By 10am, they had pushed Wallmoden's forces out, and captured two guns and a number of prisoners. The fighting paused southeast of the village, and some of Wallmoden's battalions formed up here.

BOTTLENECK

Clausewitz, hoping that Dörnberg would soon arrive to attack from the opposite side, and that the Swedish advance guard that he thought was following the Danes would also strike soon, proposed a counterattack with the few battalions they had managed to bring across the Eider by noon. But, as Clausewitz himself also pointed out, an attacker faced problems.

Once across the Eider, the road to Sehestedt became a long bottleneck. Earthen walls and thorny hedges 6ft to 8ft high bordered a path only 100-200 paces wide, making effective use of cavalry and artillery impossible, and preventing any rapid infantry advance.

Wallmoden did not want to use artillery and cavalry in this unfavourable terrain until he was convinced that Dörnberg was on his way. He sent one battalion up the road and one on each side of it, but ditches and hedges broke up the terrain beside the track, and the flanking forces dissolved almost completely into skirmishers.

The moment the Danes reached Sehestedt's southern end, a battalion of Wallmoden's Russo-German Legion commanded by Lieutenant Colonel Goltz slammed into them from the south, pushed the Danes back and seized a gun.

But the terrain kept Goltz's men from taking away their prize. The Danes brought more and more infantry against them, pushed around Goltz's left flank, and sprayed the Legion battalion with heavy grapeshot.

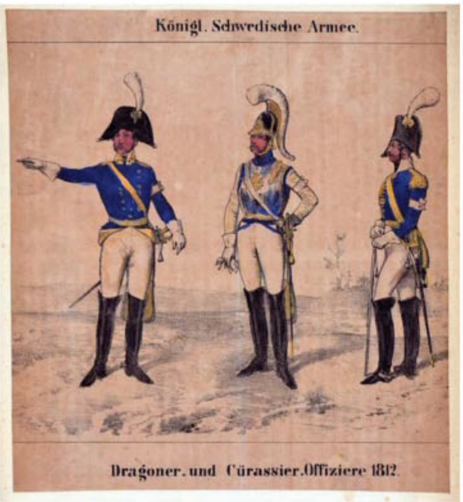
CAVALRY COLLISION

Hessen then committed his dragoons. They galloped out of the village and stormed down the narrow road straight at the attacking battalion. Goltz's men panicked, throwing themselves into ditches and hedges – where cavalry could not reach them – flinging away their weapons.

Despite the efforts of the Legion's officers, the Danes captured or killed the entire battalion, taking Goltz and 200 of his men prisoner, and capturing three guns (including the one they had just lost). They advanced as far as Osterade, even reaching Wallmoden's reserves at the Cluvensik bridge.

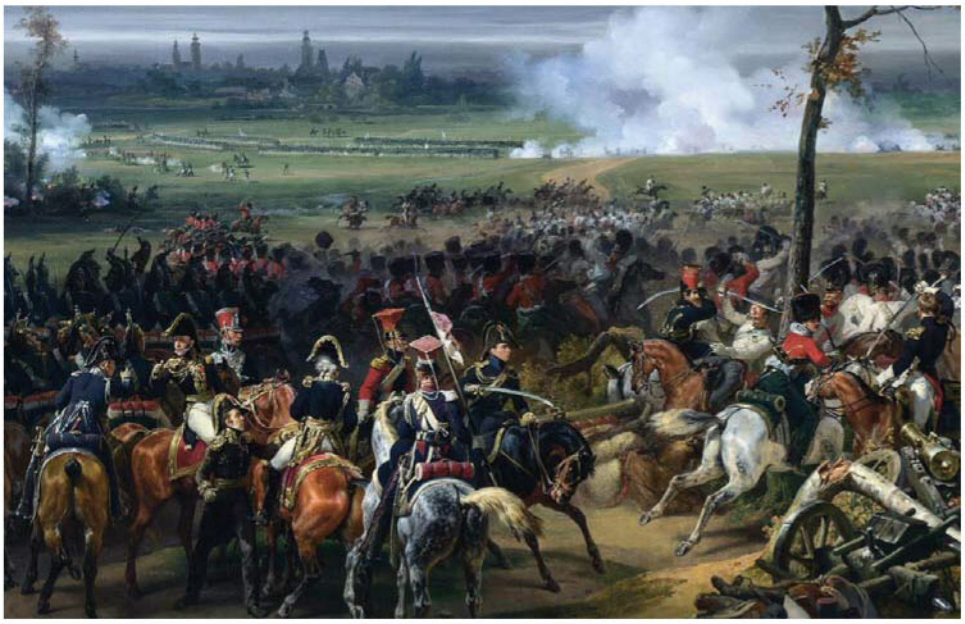
Goltz's men panicked, throwing themselves into ditches and hedges - where cavalry could not reach them.

Wallmoden responded with a charge of his own, dispatching the Legion's hussars. The Danish dragoons retreated with their prisoners and cannon as the hussars, supported by infantry, fought their way back into Sehestedt. 'Little by little we brought some four battalions and two guns into the fight to retake the village,' Clausewitz said. »


Königl. Schwedische Armee.
Dragoner. und Cürassier.Offiziere 1812.

ABOVE A group of Swedish soldiers, enemies of Napoleon in 1813 though their leader, Crown Prince Bernadotte, had previously been a French marshal.

BELOW There appear to be no significant representations of the Battle of Sehestedt. Though romanticised, this view of the Battle of Hanau, fought on 30-31 October 1813 between Austro-Bavarian and French forces, gives an impression.



The terrain, however, gave the Danes a superior position, and made it impossible for Wallmoden and Clausewitz to use their cavalry as they wished, or to make any quick advance with their infantry.

The Danes hit back with their dragoons and some hussars. The horsemen made little headway, but the Danish infantry supporting them pushed Wallmoden's men back out of Sehestedt.

FOUGHT TO A STANDSTILL

Wallmoden replied with another counter-attack, this time deploying his 120-man strong Mecklenburg Horse Jägers. This proved disastrous.

A Danish infantry battalion occupied the ditches on each side of the road, and an artilleryman bored a hole through an earth wall: the Danes fired two rounds of grape into the attacking horsemen.

The German cavalry broke, and Prince Gustav of Mecklenburg, the unit commander, was wounded and captured. Hessen said that only six of the Mecklenburgers escaped the fire of the Danish infantry.

Clausewitz wrote of the cavalry action:

> *The Danish cavalry (Holstein Dragoons) fought very bravely; with one squadron in a very narrow path they made a brilliant charge through the middle of our infantry. One squadron of the 1st Hussar Regiment of the German Legion and one from the Mecklenburg Horse Jägers did the same against the Danes so that the path, the only terrain in which the cavalry could ride, is littered with the people and men of both sides and presented a horrific scene.*

Wallmoden pulled back behind the Eider to Osterrade, and for a time the sides exchanged some light cannon fire. The Danes thought Wallmoden had withdrawn. But then two enemy battalions came down the footpath of the canal in what the Danes saw as an attempt to take their position in the rear. More Danish troops arrived and pushed the enemy back in a half-hour of fighting.

Hessen also sent two squadrons to attack an enemy party still north of the Eider. They threw them back over the bridge. One of the cavalrymen claimed that he came close to capturing General Wallmoden, so close that he actually grabbed him, but the general's horse saved him, and the Danish trooper got only Wallmoden's coat.

Hessen wrote that the enemy now withdrew 'in great haste and disorder' over the canal. The two sides continued to exchange artillery fire, but the battle was over, and the Danes had achieved their objective of opening the road to Rendsburg.

Hessen marched away at 4.30 in the afternoon, very much aware that Vegesack's division had by this point arrived to reinforce Wallmoden.

LOSSES

It had been a bloody action for both sides, though the sources very much disagree on the losses. Wallmoden's corps, on the low side, lost perhaps 500-600 prisoners and 400-500 killed and wounded; Clausewitz said it cost them 600-800 men and two cannon.

Another source puts Wallmoden's casualties at 42 officers and 1,129 men, including more than 600 prisoners. The Danes had 800-900 killed, wounded, and captured. Hessen gave his losses as 548 killed and wounded.

Defeat embittered Clausewitz. He wrote:

> *Our infantry is fighting badly, Dörnberg does not attack, the Swedes do not come; and we have to let the Danes, who even take two cannon and a few hundred prisoners from us, pass by.*

An artilleryman bored a hole through an earth wall and fired two rounds of grape into the attacking horsemen.

The result, he told Gneisenau, had not left him 'in the best mood'. He saw in the incident a missed opportunity. 'I could despair when I think what a brilliant battle was denied us,' he wrote to his wife.

He believed that if they had reached the Cluvensik bridge only six hours earlier they would have had all their forces north of Sehestedt in advantageous terrain – and closer to Dörnberg – allowing them to strike the Danes with a united army. This would have forced the Danes back to Kiel, where the Swedes were waiting, and, Clausewitz believed, resulted in the destruction of Hessen's force.

He continued:

> *It is a revolting feeling to have been so near to such a splendid success and to have fallen short of it. Although the Crown Prince heaped praise upon us, but what is that for a substitute!*

Clausewitz believed Bernadotte had failed them, and he was highly critical of the Swedish Crown Prince's conduct of the campaign, convincing himself that a better managed invasion would have trapped all the Danes in Lübeck at the outset.

PRACTICE AND THEORY

But is all of this merely the protest of a young officer, one intensely concerned with reputation and prestige, who has just suffered a defeat?

One can certainly hang on Bernadotte the failure to support Wallmoden and to keep contact with the retreating Danes. Also, Dörnberg's forces did not sufficiently communicate with Wallmoden and provide the intelligence they were supposed to.

But one also has to credit Hessen for being smart enough to pin Dörnberg's forces and keep him out of the fight. Hessen demonstrated solid tactical acumen. He executed a textbook Napoleonic action, did it superbly, and chose exactly the right moment to commit his cavalry reserve.

In defence of Clausewitz and Wallmoden, it must be said that they could bring to the fight only 4,000 men against Hessen's 9,000. On the other hand, the attack Clausewitz urged Wallmoden to make was based on the assumption that Dörnberg would arrive to assist, and that the Swedes were pursuing the enemy, as Napoleonic doctrine dictated. These are very big assumptions on which to base one's planning. An older, more mature Clausewitz noted in *On War*: 'In war, more than anywhere else, things do not turn out as we expect.'

What of the question about military intelligence with which we began? Wallmoden had been informed that the Danes were marching to Eckernförde and Schleswig, not towards them. It might be too much to argue that from this experience Clausewitz derived the scepticism about intelligence that occasionally emerges in *On War*, but it is certainly an example of why any information obtained under the pressures of war should be received with a questioning mind.

Clausewitz was indeed a staff officer, and became a renowned theorist, but he was also a combat soldier who saw a full share of powder and blood. With Napoleon's fall in 1814, he would experience victory. But in December 1813, on an all-but-forgotten field in northern Germany, he had suffered, as on many other occasions, military defeat. •

Donald Stoker is Professor of Strategy and Policy in the Naval War College's programme at the Naval Postgraduate School in Monterey, California. The most recent of his seven books is Clausewitz: his life and work *(Oxford University Press, 2014).*

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Smoke & Fire

PART 1: FLAME WEAPONS FROM THE ANCIENT WORLD TO 1900

David Porter begins a two-part series on incendiary weapons in warfare.

Experiments with incendiary weapons have been made since at least the 9th century BC, when Assyrian armies used fire-arrows. These were no more than conventional arrows wrapped with oil-soaked tow, which were set alight immediately before being fired. Simple as they were, such weapons posed a real threat to the wood and thatch commonly used in the buildings and fortifications of the period.

The Assyrians and later empires whose territories included parts of modern Iran and Iraq had the advantage of plentiful naphtha and crude-oil deposits, which seeped to the surface through bedrock and sand. These had been exploited for lamps and torches as early as 3000 BC, and were the basis for potent incendiary bombs widely deployed in siege warfare.

A Spartan army used burning sulphur in its attack on the fortifications of Plataea in 429 BC, exploiting the chemical's incendiary and toxic properties. The besiegers piled up a huge mound of firewood alongside the palisades, mixed with resin and sulphur.

ABOVE A bas-relief depicting a group of three Assyrian soldiers. One man holds a pavise (a large shield that could be rested on the ground and was often used in siege warfare) while the other two shoot arrows. The Assyrians made frequent use of fire-arrows.

The fierce fire which resulted destroyed much of the defences, and the toxic sulphur-dioxide fumes forced the garrison back from the walls. Plataea was saved only by a sudden torrential thunderstorm, which doused the fire.

ALEXANDER

Fire-ships had been recorded as early as 413 BC, but their first spectacular success came in 332 BC during Alexander the Great's siege of Tyre.

Alexander's men were building a kilometre-long causeway from the mainland to bring their siege engines within striking distance of the heavily fortified island city. The defenders converted a large transport vessel by filling it with dry brushwood and cedar torches. It was to be ignited by four huge cauldrons filled with burning bitumen and sulphur.

Aided by a following wind, the fire ship was rowed straight at the causeway. The crew jumped overboard just before impact, the effect of which was to scatter the cauldrons' contents and create a fierce blaze.

Although the causeway was protected by palisades covered with rawhide to resist fire-arrows, the size and intensity of the fire totally destroyed both the defences and the siege engines.

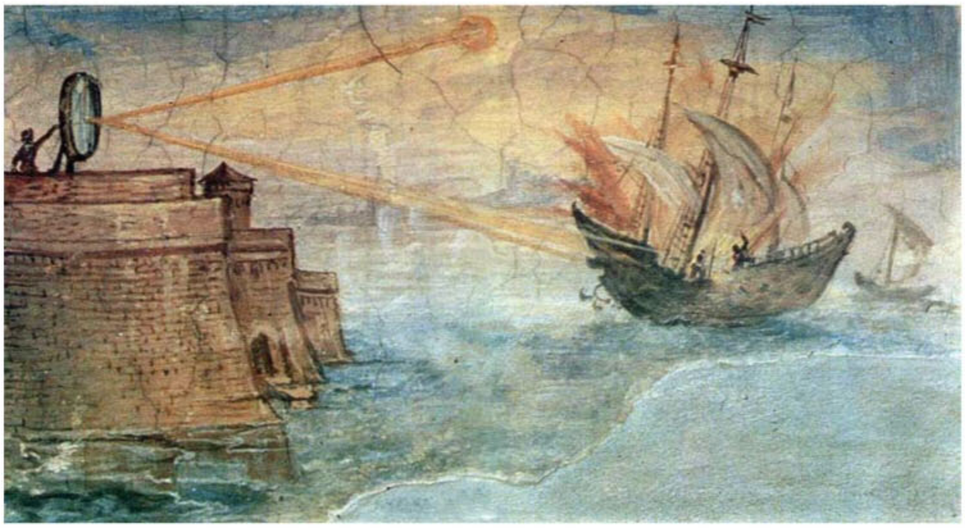
When the besiegers finally closed in on the city, they took heavy losses from catapults on the walls firing red-hot sand, which worked its way under their armour, causing multiple burns.

ARCHIMEDES

Another simple, but highly effective incendiary weapon was devised by Archimedes to defend the Sicilian city of Syracuse against a Roman siege in 214-212 BC. This was a 'heat ray', which was probably produced by an array of polished bronze shields focusing sunlight onto Roman ships with sufficient intensity to set them alight. (The principle is still used by the parabolic reflectors of modern solar furnaces.)

Over the centuries, the story has caused considerable controversy, with many experts doubting the feasibility of the technique. However, in 1973 the Greek scientist Ioannis Sakkas carried out an impressive trial at the Skaramagas naval base near Athens.

He deployed a total of 70 polished copper mirrors, each measuring 1.5m × 1m. These were focused on a plywood mock-up of a Roman warship at a range of 50 metres, which burst into flames within a few seconds.



ABOVE A Renaissance fresco-painter's impression of Archimedes's 'heat-ray', used to set Roman ships alight at the siege of Syracuse during the Second Punic War.

GREEK FIRE

The most effective of the early incendiaries, Greek fire, was invented in about AD 670 and became the 'classic' secret weapon of the Byzantine Empire.

It was first used at the Battle of Syllaeum, which raised the Arab siege of Constantinople in AD 677, and remained in service for centuries, being deployed against the Venetians during the Fourth Crusade of 1202-1204.

It quickly became one of the most feared weapons of the medieval world. However, Greek fire was very hard to control, and it would often accidentally set Byzantine ships ablaze.

The besiegers took heavy losses from catapults firing red-hot sand, which worked its way under their armour, causing multiple burns.

The ingredients, manufacturing process, and usage were very carefully guarded military secrets – so much so that they remain a source of speculation to this day. Possible compounds include:

- naphtha, nitre, and sulphur
- petroleum, quicklime, and sulphur
- phosphorus and saltpetre

The ingredients were apparently heated in a cauldron, and then pumped out through a siphon (known as a *siphonarios*) mounted on the bow of the ship (known as a *siphonophoros*).

It is uncertain if the weapon was ignited by a flame as the mixture emerged from the siphon, or if it ignited spontaneously when it came into contact with water, or even air.

Water would cause ignition if the active ingredient was calcium phosphide, which was made by heating lime, bones, and charcoal. On contact with water, calcium phosphide releases phosphine, which ignites spontaneously. The reaction of quicklime with water also creates enough heat to ignite hydrocarbons, especially if an oxidiser such as saltpetre is present.

Greek fire was also used on land, both from siphon-like flamethrowers and in the form of earthenware hand-grenades. It is possible that these held the fluids in separate chambers and were mixed and ignited when the vessel broke on impact with the target.

HEATED SHOT

Greek fire was eventually overshadowed by the development of effective gunpowder weapons, although incendiary weapons were resurrected from time to time up to the 19th century.

The most common of these later weapons were conventional iron round-shot heated until

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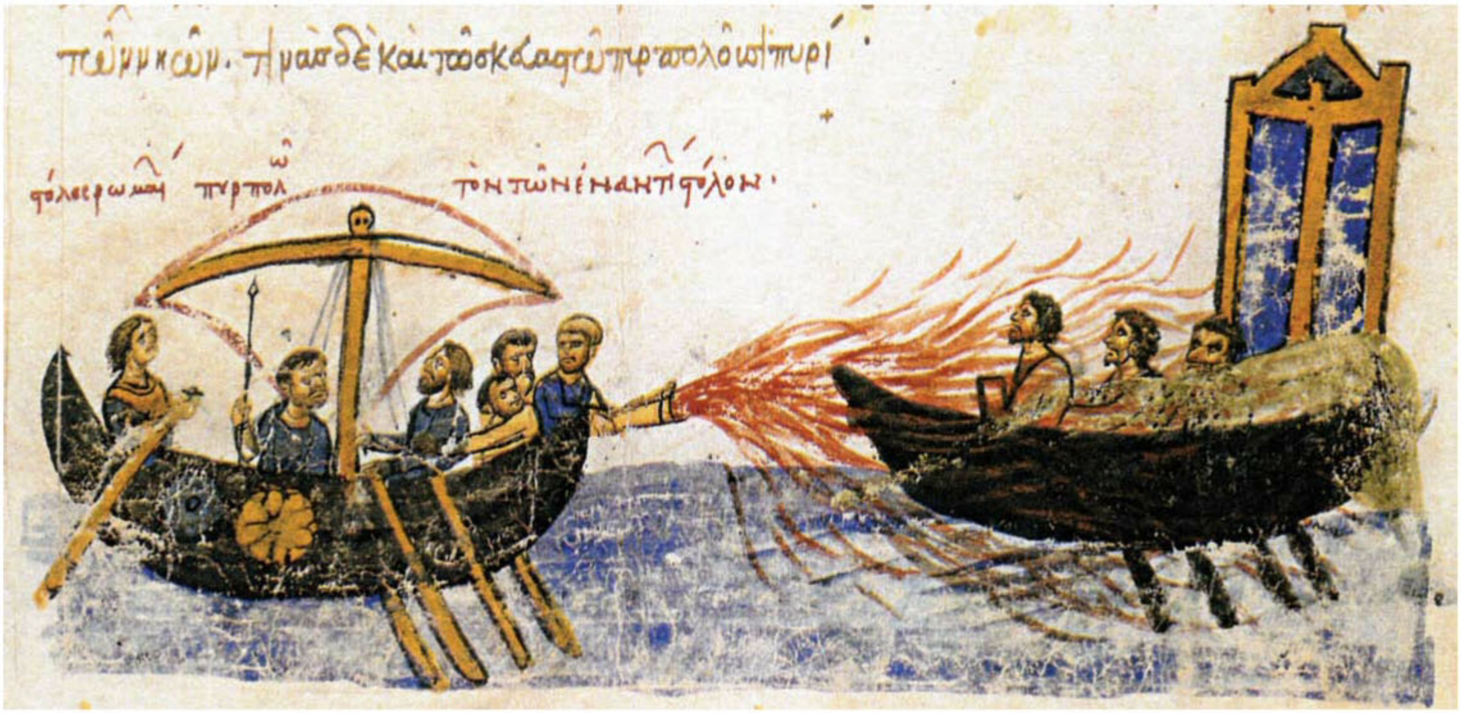
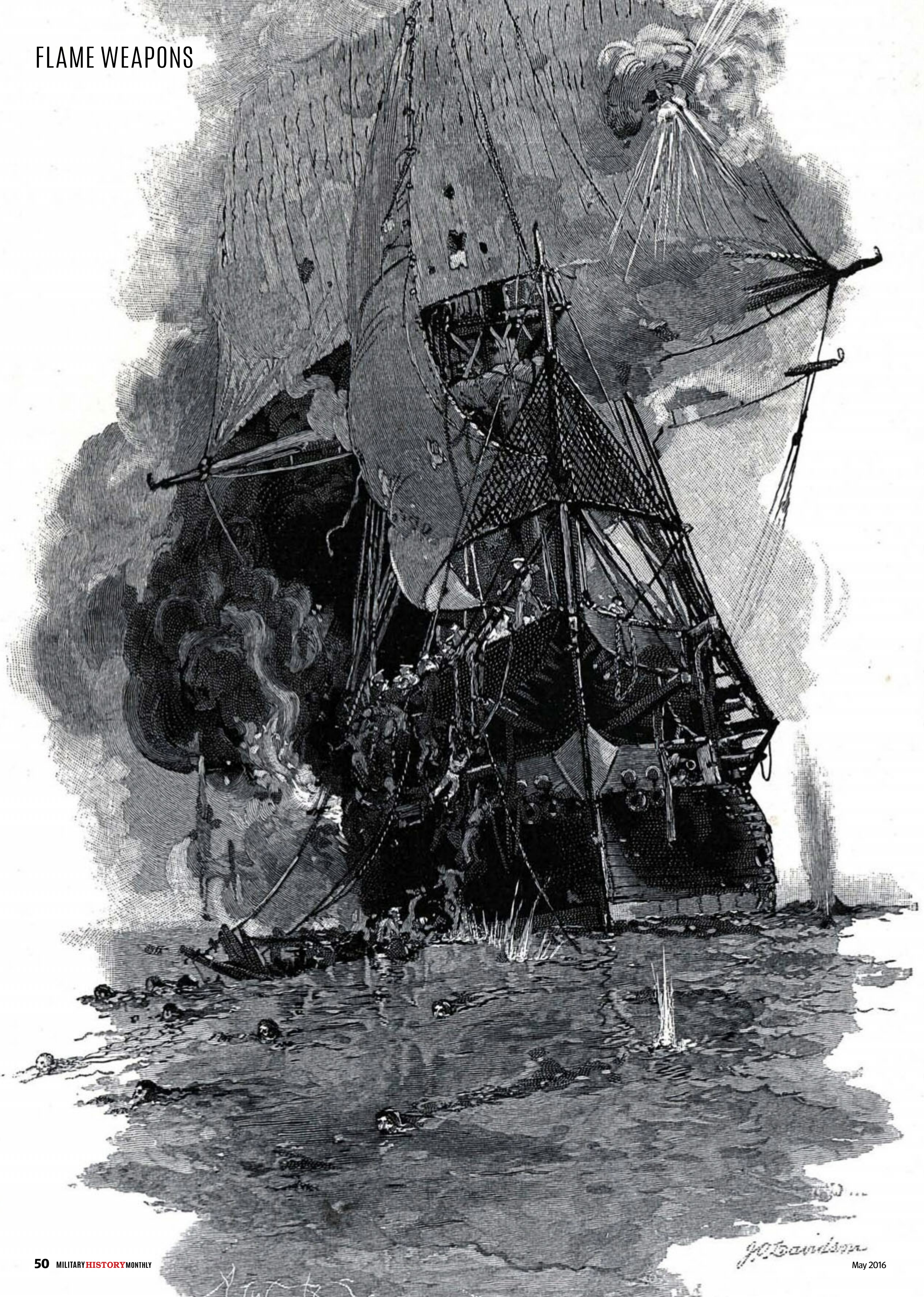
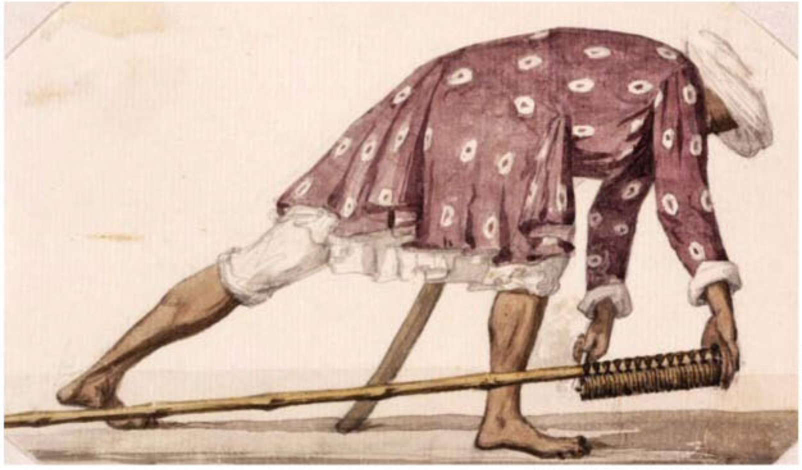
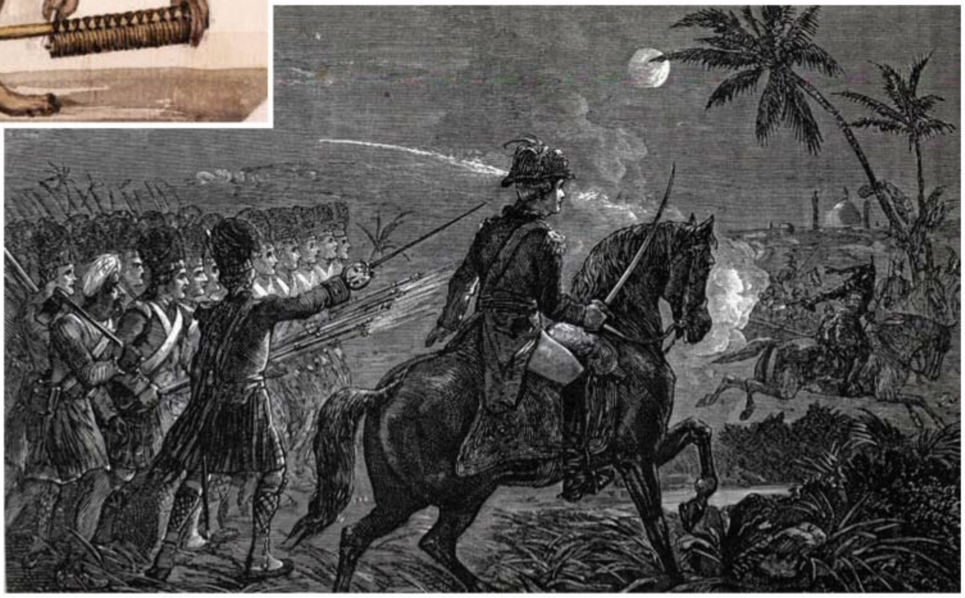
BELOW A Byzantine manuscript illustration depicting the use of Greek fire, in this case being discharged through a medieval version of a flamethrower.







Conventional iron round-shot was heated until it glowed ‘cherry red’.



The Indian army of Tipu Sultan used rockets against the British in the late 18th-century Mysore Wars. **[RIGHT]** Highlanders charge under rocket fire at the Battle of Seringapatam in 1792. **[ABOVE]** An Indian rocketeer.

they glowed ‘cherry red’. Their first recorded use was by the King Stefan Bathory’s Polish artillery during the siege of the Muscovite city of Polotsk in 1579.

Although heated shot were effective against the wooden fortifications common in Eastern Europe, their greatest successes were achieved in the coast defence role. This was hardly surprising, as fire was the greatest threat to the wooden warships of the period – a point dramatically illustrated by the fires aboard the few ships that attempted to use heated shot.

The French Romaine-class frigates of the 1790s were originally fitted with furnaces for heating shot, but these proved so dangerous that they were hastily removed.

The original method of heating round-shot was to cover them in the embers of a large wood fire, or heat them on metal grates placed over a fire-pit. By the 18th century, these methods were largely replaced by specially constructed furnaces, usually free-standing brick structures.

Such furnaces varied in size, with the largest holding 60 or more round-shot on sloping iron rails. Cold shot were rolled down the rails, with the first few rounds halting over the firebox at the bottom of the furnace, where they were heated until they were ‘cherry red’ – roughly 800-900°C (1,470-1,650°F).

When the first were removed, the next shots rolled down to take their place and be similarly heated. Care had to be taken not to overheat the shot, as any that were hotter than ‘cherry red’ were prone to become misshapen, and would either be impossible to load or prone to jam in the bore of the gun.

LEFT The last known use of conventional ‘heated shot’: the USS *Congress* burns after bombardment by heated shot fired by the Confederate ironclad CSS *Virginia* (aka *Merrimac*) at the Battle of Hampton Roads in 1862.

HANDLE WITH CARE

Heated shot required very careful handling with special tools – tongs with circular jaws were used to remove them from the furnace. Each was then placed in an iron ‘bearer’, which was carried to the guns by a two-man team.

Loading was a particularly hazardous business – a double-layered serge or flannel cartridge bag of gunpowder was loaded first. (The double bag was used with heated shot to prevent any leakage of grains of powder as it was rammed down the cannon.)

A ‘wet wad’ of moistened clay or cloth was then rammed against the cartridge to shield it from the heated shot, which was loaded next. If the cannon was to be fired at a downward angle, another wet wad was rammed down against the ball to prevent it from rolling out of the barrel.

Each gun captain had to be quick and efficient. Spending too long in aiming would allow the shot to dry out the wet wad and then burn its way through to set off the powder charge – something to be avoided at all costs, as the gun would recoil for several feet, mangling anyone in its path.

Heated shot proved to be highly effective – in 1782, during the Great Siege of Gibraltar by Franco-Spanish forces, the besiegers deployed large floating batteries protected by massive baulks of timber. However, the British coast defences, firing heated shot, destroyed three of the ten batteries, and inflicted 719 casualties. The remaining seven batteries sustained such heavy damage that they were scuttled by their crews.

The ironclad CSS *Virginia* used heated shot to destroy the wooden frigate USS *Congress* at the Battle of Hampton Roads in 1862: the last known use of the weapon.

The Victorian era saw the development of a ‘high-tech’ version of heated shot. In 1860, the Martin molten iron shell was introduced to Royal Navy service for use against wooden warships.

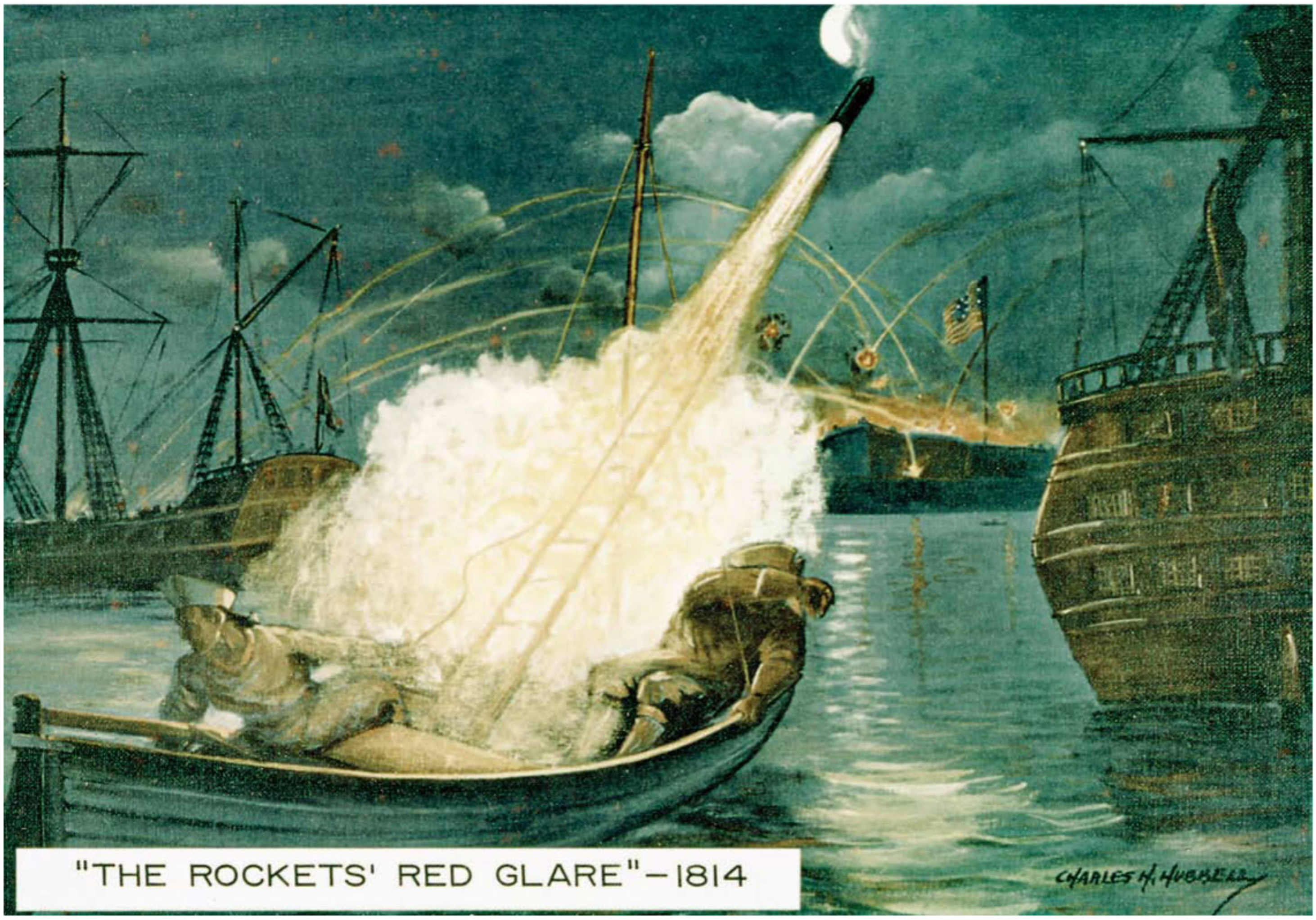
These shells were filled with iron melted in special furnaces on board the new ironclads like HMS *Warrior*. They were intended to break up on impact, splashing molten iron on the target. After filling, the shells were left for a few minutes before firing, allowing the iron in the filling hole to solidify and seal the aperture.

The shells remained effective against wooden vessels even if an hour elapsed between filling and firing, as this delay allowed the filling to solidify and heat the shell casing, making them the equivalent of conventional heated shot.

CONGREVE ROCKETS

Indian use of rockets against British forces in the late 18th century prompted the Royal Arsenal Woolwich to begin serious research into military rockets in 1801. This was chiefly the work of Colonel (later Sir) William Congreve, who studied several rocket-cases collected from India and sent to Britain for analysis. »

Images: WIPL



ABOVE The British naval rocket bombardment of an American fort during the War of 1812 – a display impressive enough to earn immortalisation in the words of the US National Anthem, 'The Star-Spangled Banner'!

Congreve's first rockets were essentially more sophisticated versions of those used by Indian armies – an iron case containing a propelling charge of black powder and a warhead.

The rockets used in action during the Napoleonic Wars were stabilised by side-mounted wooden guide-poles, rather like overgrown fireworks, although those produced from 1815 had the poles screwed into the baseplates.

By 1815, a variety of rockets were operational with both the Army and the Royal Navy, ranging from light 2.7kg (6lb) types to massive 203mm (8in) incendiary rockets for use as siege weapons. The latter weighed 136kg (300lb) and had a range of up to 3.2km (2 miles).

Fires were started that destroyed much of the town and harbour.

Most of those designed for field use – primarily the 2.7kg, 4kg, 5.4kg, and 8.1kg (6lb, 9lb, 12lb, and 18lb) versions – had interchangeable warheads. These included solid shot, shell (at this period a hollow cannonball filled with gunpowder), and shrapnel (a shell packed with bullets and gunpowder).

The 5.4kg shrapnel warhead contained 72 carbine bullets, and it could be deadly against the massed infantry formations of the period if it burst overhead.

The problem was that Congreve's rockets were all hopelessly inaccurate. They could only reliably hit large-area targets such as towns or harbours. On the other hand, it was soon realised that no matter what warheads were fitted, all rockets were potent incendiary weapons, with a rate of fire far higher than the siege artillery of the period.

NAVAL ROCKETRY

The Royal Navy quickly developed techniques for firing rockets from light wooden frames mounted in small boats. These were first used operationally on the night of 8/9 October 1806 when a flotilla bombarded Boulogne.

A total of 24 cutters commanded by Captain William Jackson launched 2,000 14.5kg (32lb) rockets in 30 minutes. Although little damage was done to the French invasion barges, fires were started that destroyed much of the town and harbour.

This partial success led to the use of rockets in the bombardment of Copenhagen in September 1807, when a total of 25,000 were launched, destroying several hundred buildings.

Congreve rockets remained in service until 1850, but it was their use in the bombardment of Fort McHenry during the War of 1812 that gave the weapons a curious form of immortality. The composer of the United States' National Anthem, Francis Scott Key, was an eye-witness to the attack, and included a reference to them – 'and the rockets' red glare, the bombs bursting in air' – in 'The Star-Spangled Banner'.

By 1900, it seemed that incendiary weapons were no more than historical curiosities. The new century, however, was soon to discover that they were anything but obsolete. •

David Porter worked at the MoD for 30 years and is the author of nine books on the Second World War, as well as numerous magazine articles. He is a regular contributor to MHM, *specialising in military technology. David Porter's mini-series will conclude next month with an analysis of 20th-century incendiary weapons.*

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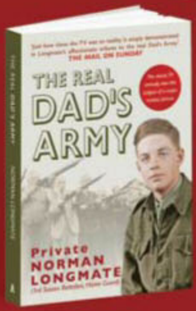
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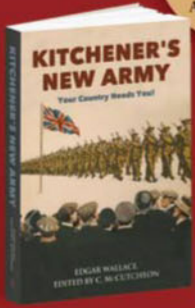
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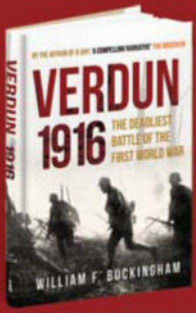
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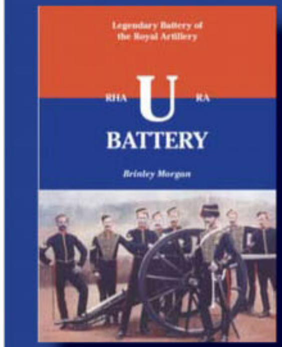
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THE ROYAL BERKSHIRES *at* ANZIO

5-9 February 1944

In the fourth of our series, military historian **Patrick Mercer** uncovers the extraordinary role of 'The Fighting Tenth' in the defence of the Anzio beachhead.

You would not think it significant. It is just a semi-derelict old house, shoehorned into the middle of a scruffy Italian estate, in a nothing town called Aprilia. You are much more likely to have heard of Aprilia due to its motorbikes than anything to do with the Second World War.

But this knocked-about complex is 'The Factory' – of dark renown in 1944 – while the bullet-scarred piles of bricks nearby were once known as 'House Z'.

This place represents the high watermark of Hitler's attempt to push the Allies back into the sea at Anzio, and the house itself is famous for the courage and daring shown there by the 10th Battalion, Royal Berkshire Regiment – 'The Fighting Tenth'.

The 10th came from nowhere and disappeared almost as fast once Anzio had ravaged it – but it left a crimson wake and a huge reputation.

Raised in May 1940 in Reading as simply a training unit, the 10th Royal Berks soon found themselves elevated to a combat role as part of 168th Brigade, 56th (London) Division, and saw their first action in Sicily.

Thoroughly sharpened there, the 'Union Brigade' of London Irish Rifles, London Scottish, and Royal Berkshires were thrust onto the Italian mainland in the autumn of 1943 as part of Fifth Army's chase northwards along the coast from Salerno. But the chase did not last long, coming to a bruising halt, first on the Winter Line, then on the Gustav Line.

CASSINO

If the Tenth's achievements are to be properly understood, there must be a broader explanation of the fighting for the Gustav Line. Anchored on Cassino, the Line extended from the mid Apennines down to the coast, following the major rivers. To allow himself time to perfect Gustav, the German commander, Kesselring, ordered a stand to be made on the hastily prepared Winter Line further to the south.

One is bound to be stupefied by Fifth Army commander General Mark Clark's decision to pause after cracking the Winter Line. But however ill-conceived the lull, the Tenth must have been glad of a break after the shocking fighting around Monte Camino.

Unfortunately, that Christmas pause allowed the Germans not only to fall back in good order, but also to burrow even deeper into the rifts, rocks, and rubble of the Gustav position.

Clark's plan should have worked, nonetheless, for he intended to batter against Cassino and the long line of defences covering the Garigliano down to the sea while drawing off Kesselring's reserves with an amphibious landing at Anzio about 70 miles up the coast towards Rome.

In January, both elements of the assault were launched, but due to the media focus on the debacle by 36th (Texas) Division as they tried to cross the Rapido River below Cassino, little is known about 56th (London) Division's success further south.

THE TENTH ON THE GUSTAV LINE

Here the Tenth assaulted the home bank, then were ferried across and thrown straight into the rush for the town of Castleforte. By the third week of January, the Battalion had been in continuous action for 20 days, suffering not only from enemy fire, but also from the wind, the damp, and the intense cold.

Despite a serious drain of casualties, the Tenth were part of the desperate action for the Damiano Ridge, where the London Scottish won a VC and a German NCO recorded in his diary,

> *on the way to company HQ there are at least 20 German dead – how they died is all too evident… at night the Tommies creep stealthily around…*

> *the snipers shoot only too well. Again and again, head wounds…*

It was while the Tenth shivered and bled and fell exhausted against the sharp rocks of their parapets on the Damiano Ridge that things started to go very wrong at Anzio.

The landings further north on 22 January had been intended to take pressure off the Gustav Line further south. They were brilliantly designed and splendidly executed. But there the good news ran out.

Lucas, VI Corps commander, did not have enough troops, was jumpy after his experience at Salerno, and had no clear orders about how far and how fast he should exploit the Germans' surprise.

Predictably, that surprise did not last long: by late January both British and US troops were being pushed back from the salient they had created north of Anzio in fighting which one Panzergrenadier described as 'ten times worse than the Eastern Front'.

EMERGENCY AT ANZIO

Soon the German counterattacks were centred on Aprilia, the unprepossessing crowd of buildings known to the British as 'The Factory'. Here the Guards Brigade almost ceased to exist, and the Sherwood Foresters and King's Shropshires were worn to nothing.

US forces – paratroopers, 45th Division, tanks – were hurled into the British sector to staunch the flood. A bitter crisis had arisen where only sweet success should have been: the ulcer in the Germans' gut threatened to rupture the Allies' efforts instead.

Where were reinforcements to come from to hold the Anzio front? Ideally from a dedicated and fresh reserve, or failing that, from the Eighth Army. In due course that would happen, but Clark needed troops fast, and his only recourse was to take men from his own line on the Gustav front – the very place where pressure should have been relieved by Anzio, not the other way round.

The fighting that was to follow for the 10th Royal Berks was magnificent, but the achievement by Lieutenant-Colonel Iain Baird and his officers in pulling exhausted men out of contact with the enemy, refitting them, giving them fresh orders, and, above all, inspiring them to new effort was itself extraordinary.

With barely time enough to feed, catch a little sleep, and dry their clothes, the Tenth were embarked and sailed north for a situation that they knew to be very ugly indeed.

Think of the leadership this required at all levels: men whose ranks were already desperately thin were given no time to rest shattered

Battledress

Long tunics were replaced in 1938 by the distinctive 'battledress' combination of short tunic and trousers taken in at the ankle. The British Army pioneered this more modern, practical style of infantry uniform. By the end of WWII, it had been widely adopted by other armies.

Helmet

The Brodie steel helmet worn by virtually all British and Commonwealth service personnel throughout most of WWII was a slightly modified Mark II version of the one originally introduced in 1915, though with improved liner and webbing chin-strap. Note the field dressing tucked under the camouflage netting.

Webbing

After the Boer War, the British Army adopted cotton webbing in place of leather for belts, straps, packs, and pouches. A strong, flexible, durable material pioneered in the United States, webbing remained standard until relatively recent times, when it was replaced by synthetic materials.

Insignia

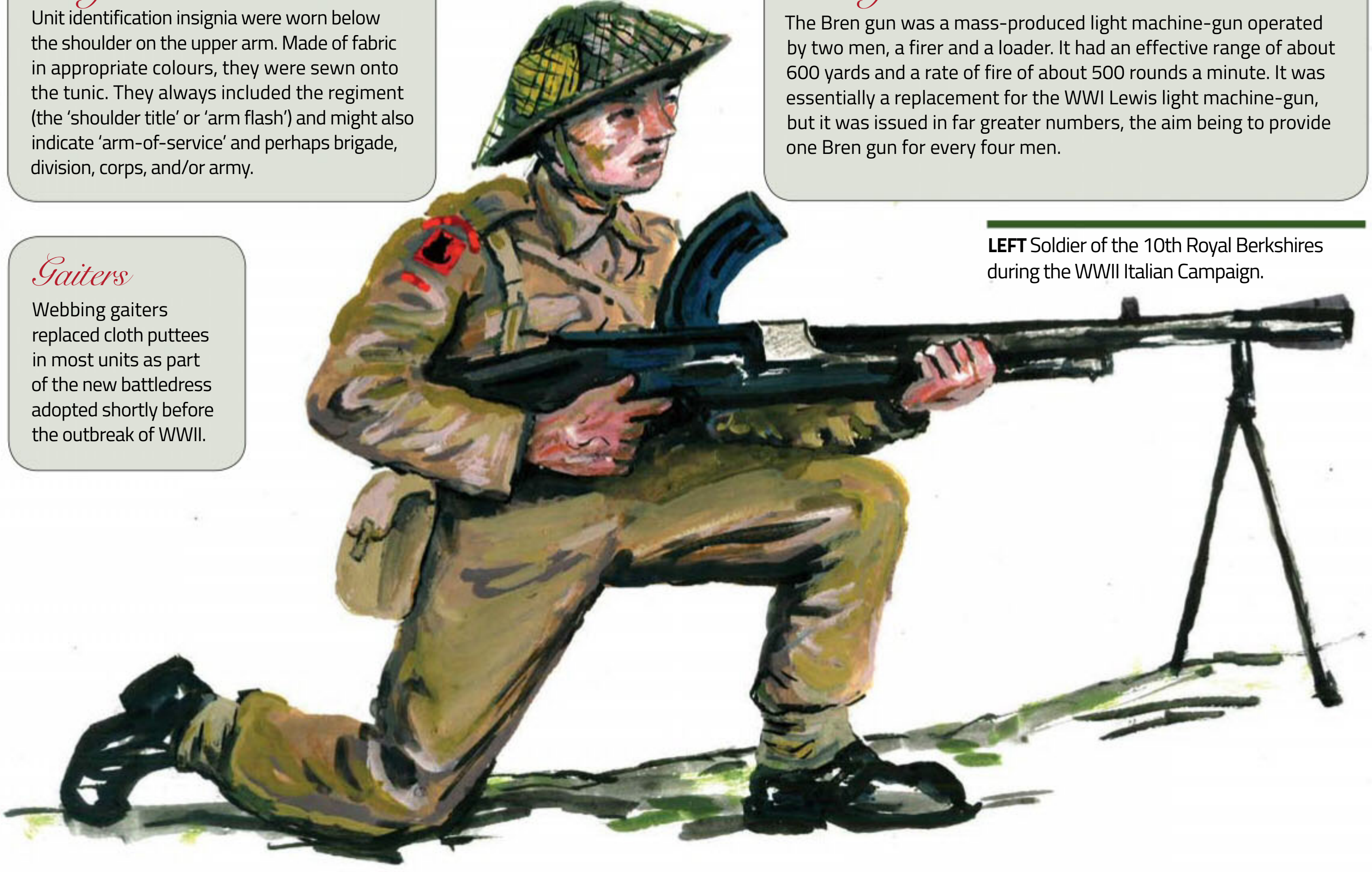
Unit identification insignia were worn below the shoulder on the upper arm. Made of fabric in appropriate colours, they were sewn onto the tunic. They always included the regiment (the 'shoulder title' or 'arm flash') and might also indicate 'arm-of-service' and perhaps brigade, division, corps, and/or army.

Bren gun

The Bren gun was a mass-produced light machine-gun operated by two men, a firer and a loader. It had an effective range of about 600 yards and a rate of fire of about 500 rounds a minute. It was essentially a replacement for the WWI Lewis light machine-gun, but it was issued in far greater numbers, the aim being to provide one Bren gun for every four men.

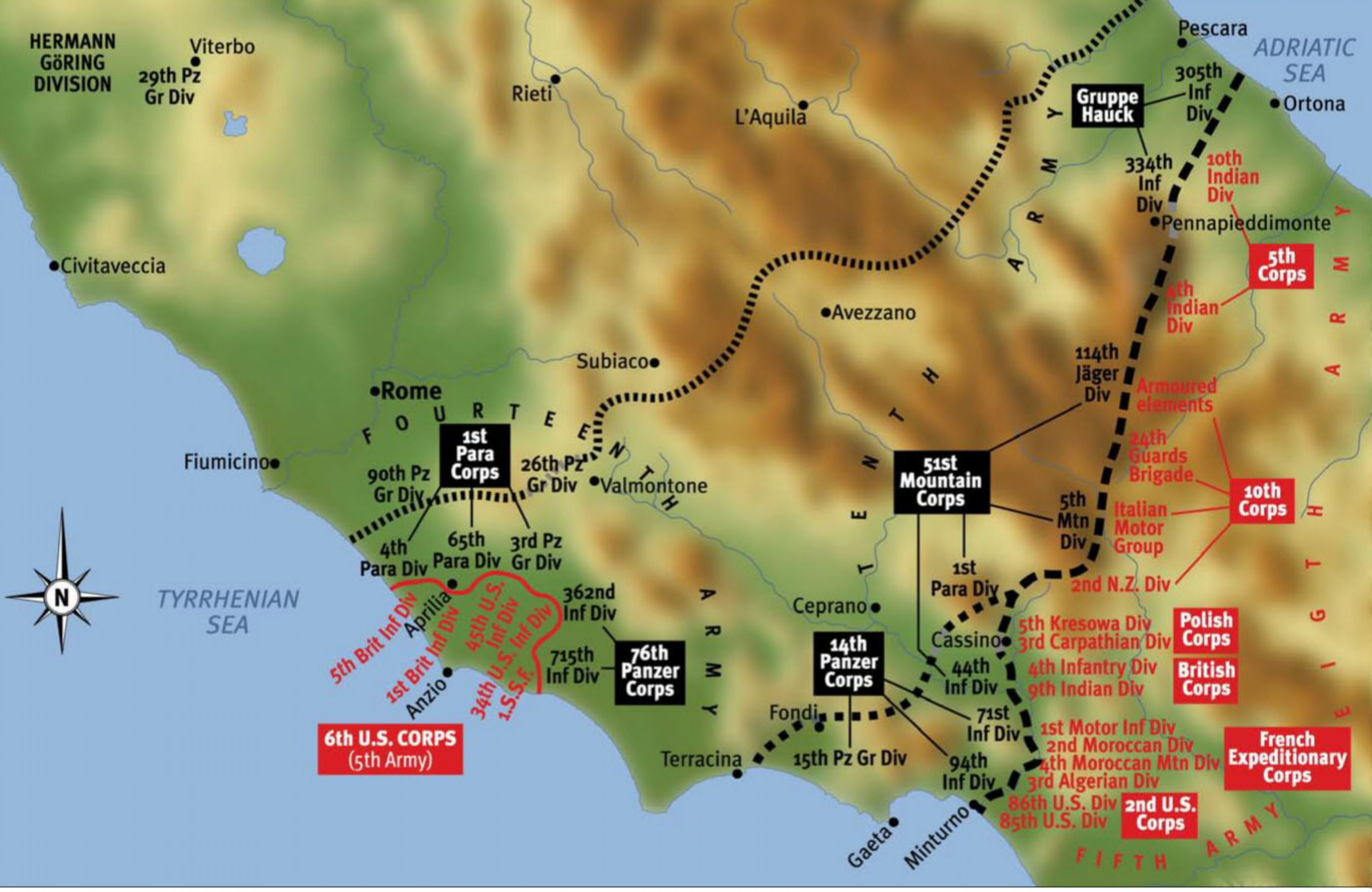
Gaiters

Webbing gaiters replaced cloth puttees in most units as part of the new battledress adopted shortly before the outbreak of WWII.



LEFT Soldier of the 10th Royal Berkshires during the WWII Italian Campaign.

Image: Tim Sanders


HERMANN GÖRING DIVISION
Viterbo
29th Pz Gr Div
Rieti
L'Aquila
Pescara
ADRIATIC SEA
Ortona
Gruppe Hauck
305th Inf Div
334th Inf Div
10th Indian Div
Pennapieddimonte
5th Corps
4th Indian Div
Civitavecchia
Avezzano
Subiaco
Rome
FOURTEENTH ARMY
TENTH ARMY
EIGHTH ARMY
FIFTH ARMY
1st Para Corps
Fiumicino
90th Pz Gr Div
26th Pz Gr Div
Valmontone
114th Jäger Div
Armoured elements
24th Guards Brigade
10th Corps
Italian Motor Group
2nd N.Z. Div
51st Mountain Corps
5th Mtn Div
1st Para Div
4th Para Div
65th Para Div
3rd Pz Gr Div
TYRRHENIAN SEA
Aprilia
5th Brit Inf Div
1st Brit Inf Div
45th U.S. Inf Div
3rd U.S. Inf Div
34th U.S. Inf Div
1.S.S.F.
Anzio
362nd Inf Div
715th Inf Div
76th Panzer Corps
Ceprano
Cassino
5th Kresowa Div
3rd Carpathian Div
Polish Corps
4th Infantry Div
9th Indian Div
British Corps
14th Panzer Corps
44th Inf Div
71st Inf Div
Fondi
1st Motor Inf Div
2nd Moroccan Div
4th Moroccan Mtn Div
3rd Algerian Div
French Expeditionary Corps
6th U.S. CORPS (5th Army)
Terracina
15th Pz Gr Div
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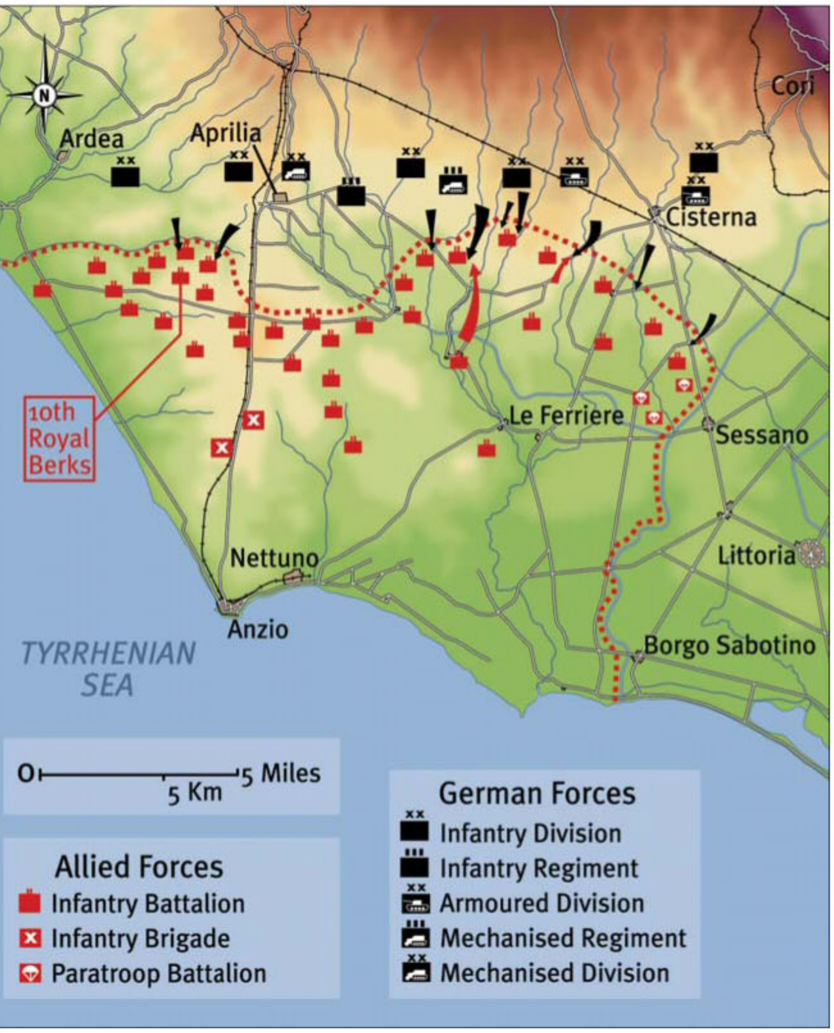
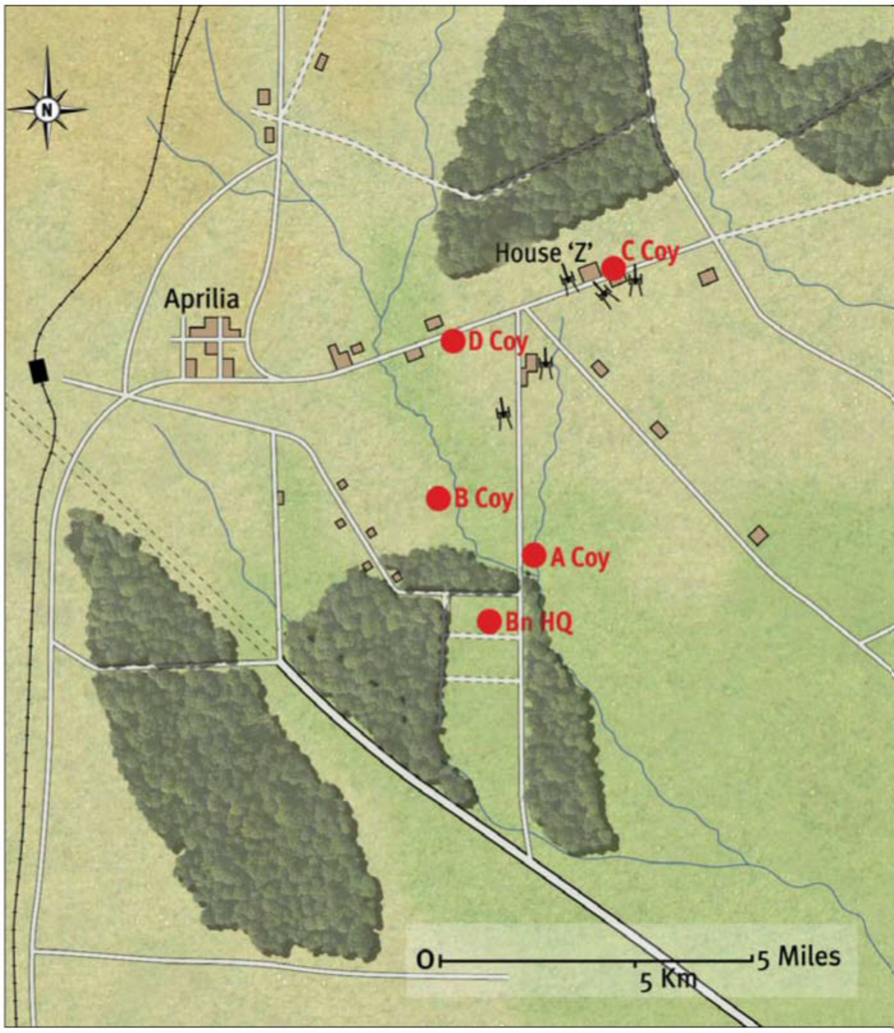

N
Ardea
Aprilia
Cori
Cisterna
10th Royal Berks
Le Ferriere
Sessano
Nettuno
Littoria
Anzio
TYRRHENIAN SEA
Borgo Sabotino
0
5 Miles
5 Km
Allied Forces
Infantry Battalion
Infantry Brigade
Paratroop Battalion
German Forces
Infantry Division
Infantry Regiment
Armoured Division
Mechanised Regiment
Mechanised Division


N
House 'Z'
C Coy
Aprilia
D Coy
B Coy
A Coy
Bn HQ
0
5 Miles
5 Km

ABOVE LEFT The 10th Royal Berkshires on the move through Italian hill-country prior to the Anzio battle.
ABOVE RIGHT 'The Factory' at Aprilia, Anzio beachhead, February 1944.

OPPOSITE PAGE:
[TOP] Map showing the Gustav Line, anchored on Monte Cassino, and the site of the Anzio landing and beachhead, an attempt to turn the German flank and draw off Kesselring's reserves in early 1944.
[BOTTOM LEFT] Map showing the position of Aprilia and the 10th Royal Berks in relation to the Anzio beachhead.
[BOTTOM RIGHT] Plan of the defensive position at Aprilia held by the 10th Royal Berks, 5-9 February 1944.

nerves, no time to sleep off the demons of combat. Once ashore, their dash into the maelstrom of The Factory is hard to equal.

A REAL BACON-SAVER

Davidson's 168th Brigade attacked without missing a step, 1st London Scottish assaulting the slopes north of The Factory with a style that the anti-tank officer of 2nd Foresters described as 'a real bacon-saver. I'd seen nothing like that before or since.'

Then the Tenth were quickly moved to relieve 1st Division's Reconnaissance Regiment on the open eastern flank of the town, the vulnerable line where British and US forces should have met.

Today the ground is much more built-up, lying, as it does, on the outskirts of a much larger Aprilia. You can still see, though, the small wood to the Tenth's north-east, the line of the Moletta's tributaries which bisected their position, and the higher ground where 'Dung Farm' lay and which was used by enemy artillery observers. The old windmill has gone, but House Z is still there marking the forward boundary between D and C Companies and the centre of the Battalion's anti-tank defence.

The Germans, of course, had been thinly spread around the coast south of Rome, but they had concentrated what reserves they had at road and railheads, ever conscious »

BELOW LEFT British infantry sheltering in a captured German trench at Anzio.
BELOW RIGHT British Bren gunners, shown in action at Anzio.

Maps: Ian Bull

of probing Allied aircraft, which mostly dominated the sky.

However, their contingency plan to deal with an amphibious landing, 'Plan Richard', had been well rehearsed, and with the breathing space that the Allied corps commander's inertia gave them, they massed quickly and reacted hard.

As the British 1st Infantry Division's assault failed at Campoleone in the first days of February, so the Germans pushed back the salient that had been created using reserves from as far away as France and the Balkans. They hurled tanks down the arrow-straight Via Anziata, while taking full advantage of the dreadful weather, which negated much of the Allies' air superiority.

With the ingenuity that the Germans always showed for cobbling fighting units together, the Tenth was to face the mixed armour, close-support artillery, and stormtroops of Assault Group Graser – and would be almost overwhelmed.

THE DEFENSIVE LINE

Hasty trenches were dug, buildings sandbagged, a few mines laid, anti-tank guns and mortars carefully sited, but the Tenth was too weak to cover such a large area.

The night of 5/6 February saw some enemy patrolling and feverish preparation by the battalion, but as daylight came the initial probing attacks were broken up by the fire of artillery, mortars, and Vickers machine-guns.

This was followed, however, by two days of full-scale assaults by tanks, grenade-hurling infantry, and mortar- and artillery-fire. The effect was to whittle away the battalion's strength.

Three companies had to be regrouped around B Company's position by midday on 8 February, with the commanding officer recording,

> *men dog tired, I can't write consecutively as so many things happen at once. Brig [Brigadier/Brigade] says can't send any more help so I took a risk and ordered the Bn [Battalion] to sleep with minimum sentries for 2 hours… on such a wide front this was a big risk, but men must sleep.*

Extraordinarily brave acts took place. Sergeant Griffin, B Company's Cook Sergeant, brought up rations and ammunition, then stayed to kill Germans. Lieutenant Bond led a wild counter-attack with just a platoon of C Company onto B Company's position, hurling back the enemy with grenades and bayonets. Royal Artillery anti-tank gunners fired at shockingly close range to the enemy's panzers.

TO BREAKING-POINT

The Commander of 168th Brigade, Kenneth Davidson, wrote a stirring message to the Tenth as the crisis approached:

> *We must go on fighting it out in the knowledge that on our successful defence depends a very great deal the future of this campaign… although we have suffered heavily, so has the German… and I have little doubt we have knocked much of the heart out of him.*

The brigadier must have known that the Royal Berkshires were by now stretched to breaking-point.

That point was reached after dawn on 9 February. As the gunners fired their last armour-piercing round and Bren guns became too hot for barrels to be changed, the Tenth's defensive perimeter shrank even further.

One platoon of A Company counter-attacked D Company's position, but found the survivors almost submerged by German dead.

So the battle swept back and forth until finally just 40 survivors held the line which almost 700 men had defended two days before. Yet, as weary, shaken, battle-shocked men stood grimly to their weapons and waited for the arcs of tracer, thumps of mortars, and squeal of tracks to begin the final episode, the enemy shrank back.

As the regimental historian puts it,

> *with ammunition exhausted and anti-tank guns out of action there was little infantrymen could do against tanks. Many a Royal Berkshireman was taken prisoner, but the honour of the regiment was fulfilled and the Boche was fought to a standstill.*

The Fighting Tenth had won: an ordinary bunch of ordinary men had done something quite extraordinary – stood foursquare in Hitler's path and refused to budge until hardly any of them were left. •

Patrick Mercer is a former soldier, journalist, and MP. He is interested in any action of the British Army or Navy, but has made a special study of the Italian Campaign.

The gunners fired their last armour-piercing round and Bren guns became too hot for barrels to be changed.

THE ROYAL BERKS

Origins

The 66th Regiment of Foot was first raised in 1758, during the Seven Years War, taking the county title and becoming the 66th (Berkshire) Regiment of Foot in 1782, during the American War of Independence.

History

The regiment had found itself in some pretty tight corners before Anzio.

The 2nd Battalion, 66th (Berkshire) Regiment lost a stand of colours under a storm of lancers at Albuera in 1811, the 49th Foot (later twinned with the 66th in the Cardwell reforms) had fought with nothing but bayonets and boulders at Inkerman (1854), while another pair of colours had been snatched by the Afghans from the dead hands of the 66th at that most bloody business, the Battle of Maiwand (1880).

Reforms in the 1870s led to the merging of the 66th, the 49th, and the Berkshire militia to form, in 1881, The Princess Charlotte of Wales's Berkshire Regiment. The regiment then became the Royal Berkshires following its role at the Battle of Tofrek against the Sudanese Dervishes in 1885.

The Royal Berkshires fought throughout WWI (on the Western Front, at Salonika, and in Italy) and WWII (at Dunkirk, in Italy, in the Far East, and in north-west Europe).

The regiment has been part of The Rifles since 2007.

Key facts

- Originally raised as Trelawney's Regiment in 1744, the 49th Foot were granted the dual titles 'Princess Charlotte of Wales's' and 'Hertfordshire', before being grouped with the 66th Foot and the Berkshire Militia in 1881.
- Dr John Watson, Sherlock Holmes' fictional companion, was wounded while serving with the 66th at the Battle of Maiwand.
- William McGonagall wrote a poem about the 66th at Maiwand entitled 'The Last Berkshire Eleven: the heroes of Maiwand'. It mentions the regimental dog Bobbie, who was a survivor of the battle.
- The Royal Berkshires' nickname was 'The Biscuit Boys'.

A SOLDIER IN ARABIA
David Neild
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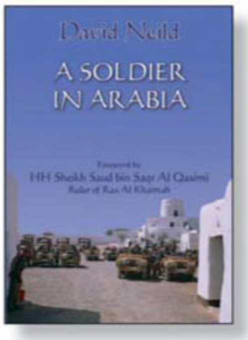
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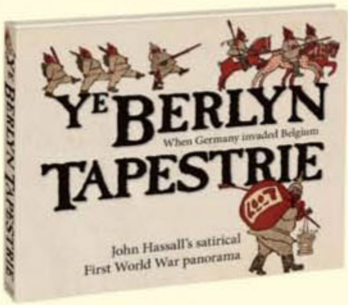
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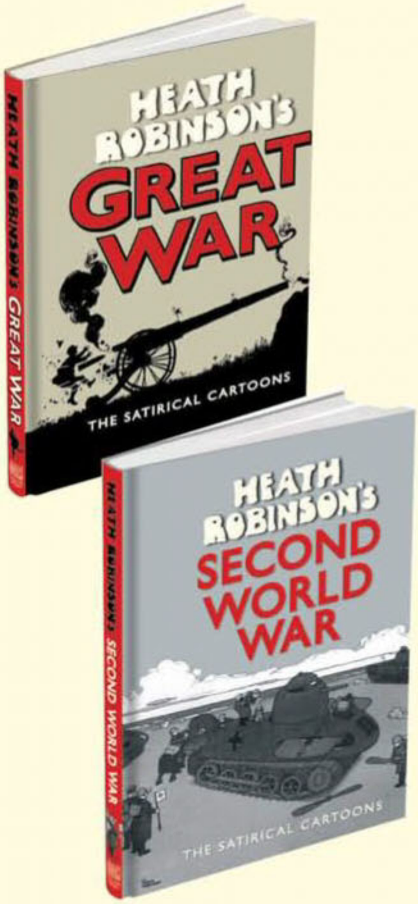
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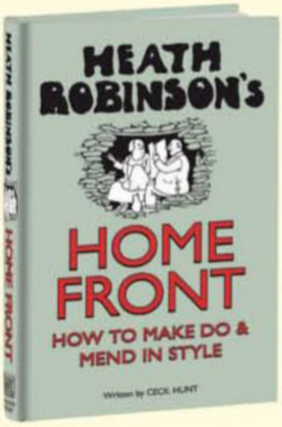
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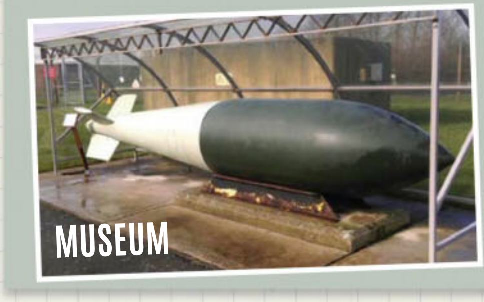

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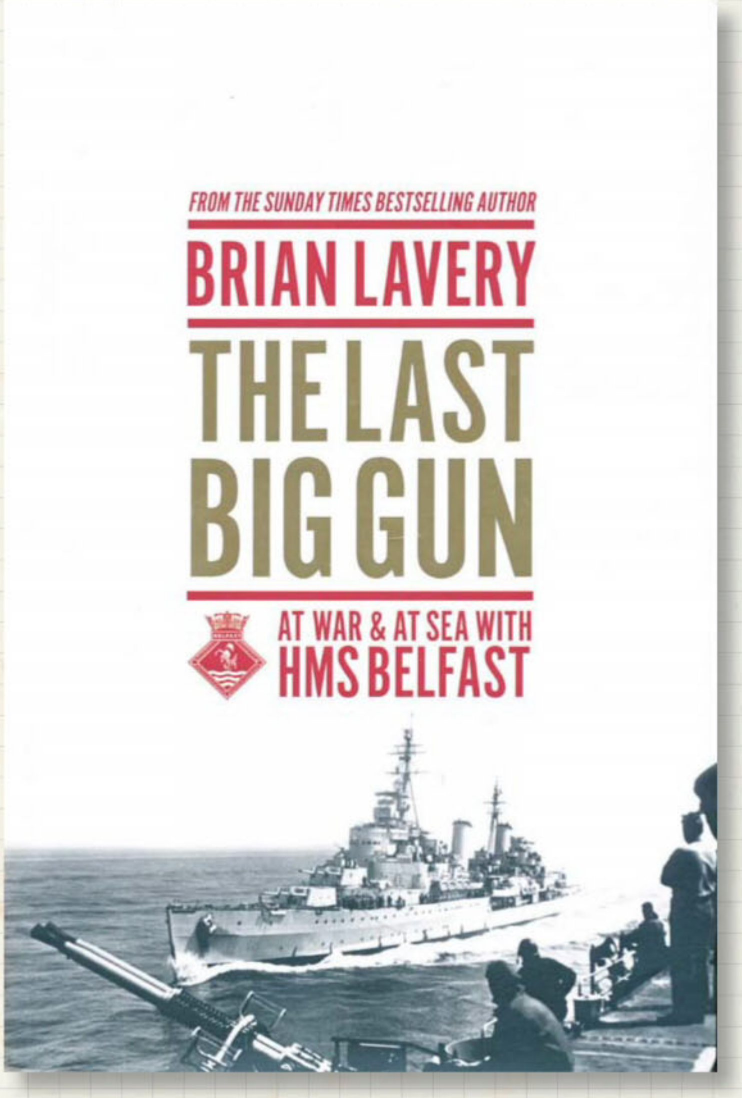
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THE LAST BIG GUN
AT WAR & AT SEA WITH HMS BELFAST

As a former resident historian aboard HMS *Belfast*, now a branch of Imperial War Museums and one of Britain's most important surviving historic ships, I thought it unlikely that there would be much new to learn about the ship, her history, or her people. This conclusion could not have been more wrong, and, on reflection, when the author has Brian Lavery's stature and experience, this is not remotely surprising. *The Last Big Gun* is meticulously researched, drawing on a wealth of primary source material, much of it previously unpublished.

After a gripping prologue describing *Belfast*'s near-catastrophic mining in November 1939, Lavery begins his narrative with the cruiser's construction. This he places neatly in context with a brief overview of Royal Navy cruiser development from the First World War to the 1930s. This is supported by a useful set of line drawings illustrating representative cruiser types from 1898 to 1937.

Nobody knows the collections of the National Maritime Museum better than Lavery, who is its Curator Emeritus. His encyclopaedic knowledge is well illustrated by his fascinating blow-by-blow account of the design and build process for *Belfast* and her sister-ship *Edinburgh*.

Throughout the book, however, Lavery always tries to break up the technical and historical data with personal testimony from the men who were there. The description of the banter between the Harland and Wolff team and the Royal Navy officers who had come to commission the new ship is particularly entertaining.

EARLY YEARS

The book is divided into 12 chapters, following a structure which will be familiar to anyone who has visited the ship and toured its exhibition galleries. From her construction, the author moves on to look at her commissioning and 'work up'; then her early service on blockade duty with the Northern Patrol. This includes her first significant success: the seizure of the German liner *Cap Norte* on 9 October 1939.

However, after only a couple of months in service, *Belfast* was badly damaged by a mine. Picking up the story after this event, Lavery devotes a chapter to the struggle to save HMS *Belfast*, and then its three-year reconstruction.

If the book has a flaw, it is the author's tendency to insert long lists. A good example of this is the description of the various radar sets fitted as part of the reconstruction.

BELFAST AT WAR

The technical terminology and jargon Lavery uses also makes the book occasionally challenging for the general reader. A glossary might perhaps have helped to widen the book's appeal without overburdening the text with definitions of anti-submarine booms, parabolic aerials, and degaussing.

The high point of any *Belfast* narrative is her active service from late 1942 until the end of the Second World War, and the author devotes five chapters to this period. They cover the cruiser's gruelling Arctic Convoy duty, and

> *The Last Big Gun* is an impeccably researched, well-written book, which was a particularly great pleasure to read.

RIGHT One of HMS *Belfast*'s Walrus flying boats being paddled towards the ship to be hoisted by a crane.

its part in the Battle of North Cape on 26 December 1943, when she formed part of the force that sank the German battle-cruiser *Scharnhorst*.

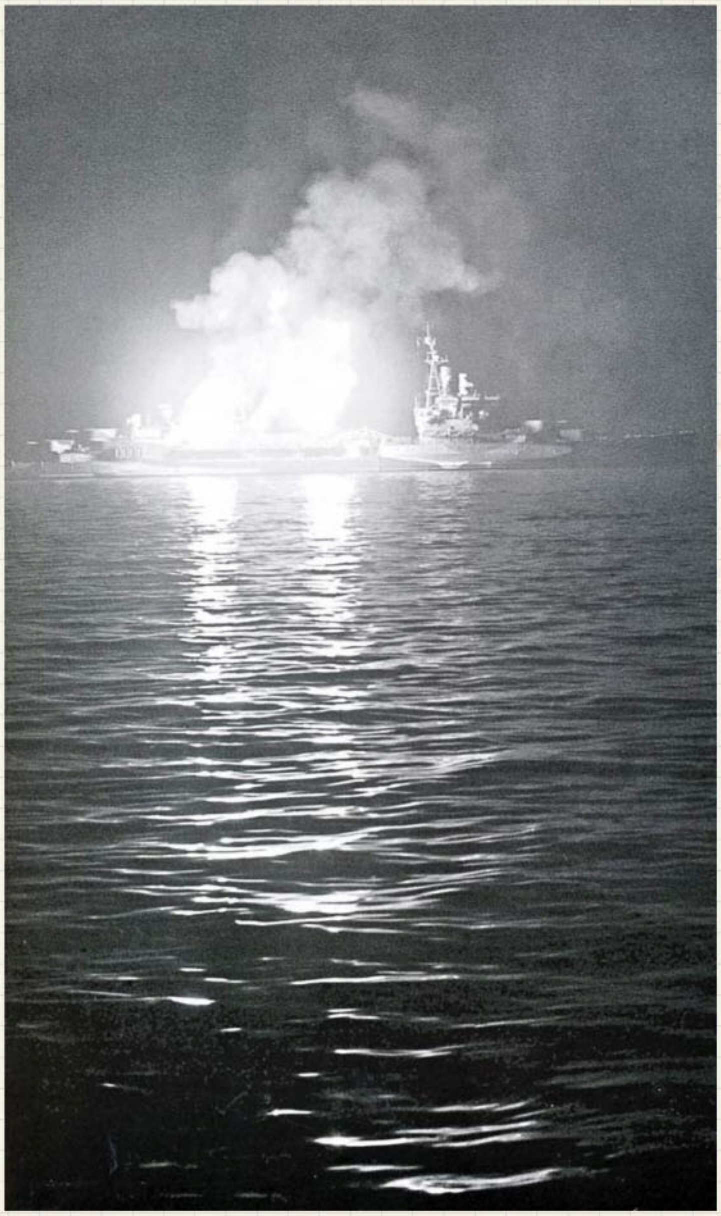
Belfast's role supporting the Normandy Landings and the fighting which followed in June-July 1944 is, of course, covered, and the war narrative ends with the ship's belated move to the Far East in 1945 to join the British Pacific Fleet – though just too late to take part in the Pacific War.

Lavery's account of these momentous events is well crafted and draws on a range of primary source material, including the ship's logs, technical reports, and instructional manuals, as well as relevant confidential reports, orders, and plans.

As always, the author takes these potentially dry factual accounts and moulds them into a compelling narrative, weaving in occasional testimony from the ship's company and other key figures. Lavery's descriptions of what passed for ordinary naval life in the Arctic theatre are particularly engaging.

They also provide conclusive proof that, no matter how well we might think we know a subject, each new archive source or nugget of personal testimony to which we are exposed has the potential to expand our knowledge and make our mental narrative that bit more complete. The presence of an African sailor named 'Johnny' in *Belfast*'s ship's company was a revelation for me.

BELOW Big guns: this photograph, taken on 27 June 1944, shows HMS *Belfast*'s starboard 4-inch guns firing on Ver-sur-Mer.



The wry, sometimes outspoken, extracts from Midshipman David Mudford's journal are particularly entertaining. Mudford joined the ship in May 1945 and witnessed the ship's company celebrating victory in Australia, where he concluded that 'I think it will be better for me to leave well alone and to make no effort to recapture some of the scenes which occurred there'!

AFTER THE WAR

Belfast's long post-war career is wrapped up in two chapters, perhaps a little bit of a lost opportunity. Both, though, make for fascinating reading, and shed invaluable new light on incidents that I had previously only heard of as incomplete reminiscences.

It was particularly satisfying to finally read authoritative accounts of the rescue of survivors from the grounded Chinese Nationalist Tank Landing Ship *Cheung Hsia*, and of the Battle of Changni-do in 1952, when *Belfast* supported South Korean forces in an obscure, but apparently bloody, skirmish to recapture an island. The latter engagement certainly imprinted itself on the memories of many *Belfast* Korean War veterans, and the ensign the ship flew remains in the possession of the HMS *Belfast* Association.

Lavery's last chapter deals with *Belfast*'s extended refit and modernisation in the late 1950s (which essentially created the ship which visitors see today), and its last years of active service during the Cold War, which were again spent mainly in the Far East. It ends with a very brief overview of the ship's rescue and eventual transfer to Imperial War Museums.

IN PICTURES

Perhaps the only element of the book which produced no real surprises were the 40 or so photographs, a mix of historic shots of *Belfast*, contextual reference pictures of relevant places, people, and ships, and shots of the ship as she appears today. Photographs of *Belfast* are quite few and far between, so those that exist are very well known. It was perhaps a little too much to hope that, in the course of his research, the author might have uncovered a few new ones.

Drawings of *Belfast* in 1942 and after reconstruction in 1962 are helpful, as is a reproduction of Ross Watton's exploded deck plan, the original of which is on display aboard the ship.

In summary, *The Last Big Gun* is an impeccably researched, well-written book, which was a particularly great pleasure to read. In writing it, Brian Lavery has produced an overdue and very fitting tribute to the long and distinguished life of the Royal Navy's last-surviving Second World War cruiser.

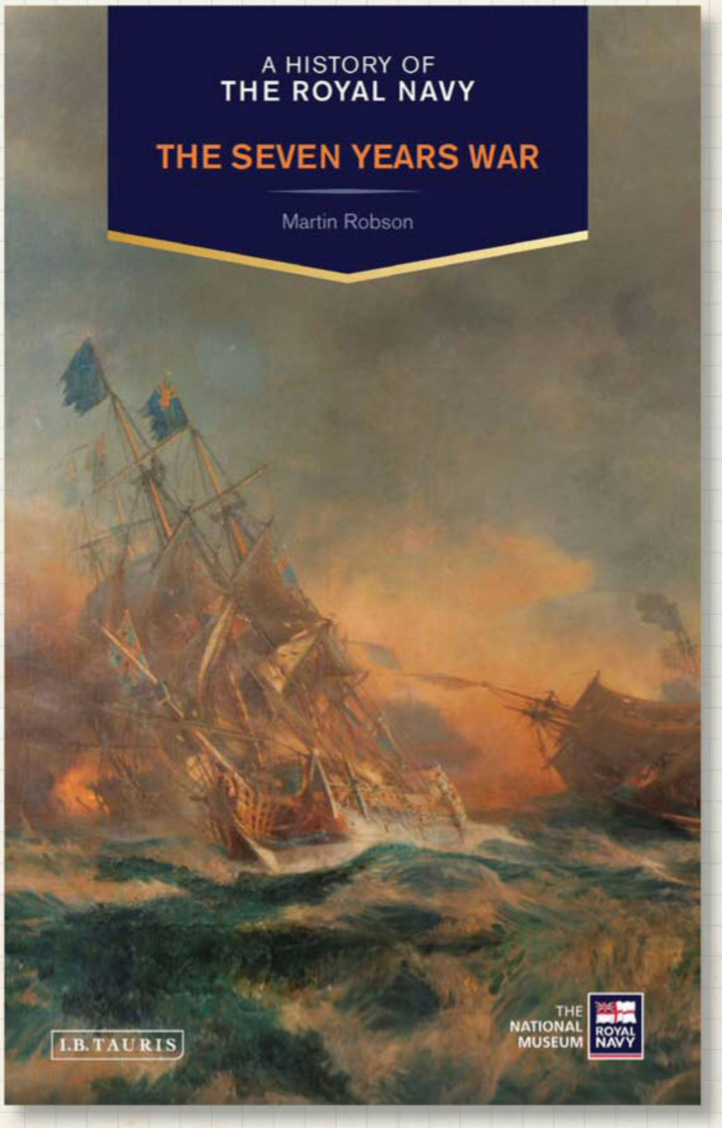
NICK HEWITT

BOOKS

THE BEST NEW MILITARY HISTORY TITLES THIS MONTH

THE SEVEN YEARS WAR

Martin Robson
I B Tauris, £20 (hbk)
ISBN 978-1780765457



As we continue to commemorate the centenary of the First World War, this book reminds us that it was not the first global conflict. In 1754, a century and a half before the fatal shot was fired in Sarajevo, Britain and France became embroiled in a war that would spread across Europe and around the world. What became known as the Seven Years War was waged in almost every corner of the globe, from North and Central America to India and the Philippines.

The conflict begun when the British attacked and seized French merchant ships in North American waters. The war snowballed when Britain's ally Prussia jumped into the fray by overrunning Saxony, and Europe was from then on at war. It soon escalated into an international maritime conflict lasting almost twice as long as the Great War.

Martin Robson's authoritative book examines Britain's maritime strategies, operations, and tactics on the High Seas, through a broad history of the Royal Navy's role in the struggle. The author focuses on the activities of the Royal Navy's key protagonists, such as Admiral Sir Edward Hawke, whose action at Quiberon Bay, off the coast of France, in 1759 achieved one of the most decisive victories in naval history.

Robson devotes a whole section of the book to a detailed analysis of this classic engagement. Citing a wealth of historical sources, he concludes that Quiberon Bay was 'the nail in the coffin of any possible French invasion of the British Isles'. The battle also decided the fate of French Canada, for the transatlantic link between Old and New France had been fatally severed. British operations in Canada could now proceed in the secure knowledge that France could offer its colony little, if any, aid.

Britain had vital linkages between all the theatres of operations, and, as far as Prime Minister William Pitt the Elder was concerned, the war was an exercise in grand strategy on a global scale. This meant that for a successful outcome Britain needed to dominate the seas that connected different parts of the world, and to forge its colonial activities into a maritime whole.

> France took a mighty hammering in the war, being forced to give up all of Canada to Britain under the Treaty of Paris.

The government had originally tried to keep the North American conflict separate from that in Europe. This proved futile, however, since Britain's global and European interests were intertwined.

Robson draws attention to the fact that the war required a cautious balancing of grand strategy in order to achieve Britain's objectives in Europe and overseas. The Royal Navy was central to Pitt's strategic vision. In the countdown to war, the Royal Navy was strengthened in the numbers of both ships and seamen. In Europe, this was to act as a deterrent to French aggression, while overseas, in order to safeguard its colonies, Britain had to rule the waves.

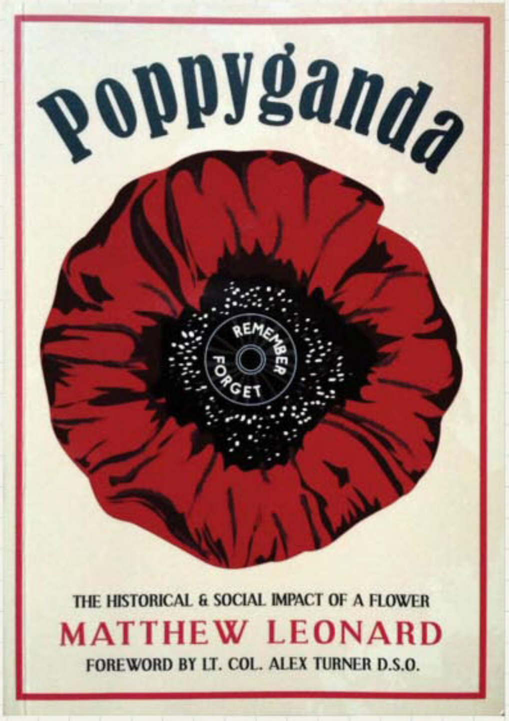
The Royal Navy's increase in size allowed Britain's political objectives to be pursued by projecting power from the sea. This in turn influenced the course of conflict on land in the broadest sense. 'Only with this wider strategic vision can the role of the Royal Navy in British success in the Seven Years War be fully understood,' the author explains.

France took a mighty hammering in the war, being forced to give up all of Canada to Britain under the Treaty of Paris concluded in 1763. France also ceded Louisiana to Spain, and returned Menorca to the British, who also gained control of Florida from the Spanish.

French power in India was broken, paving the way for eventual British hegemony across the Subcontinent. Many other territorial exchanges took place between Austria, Prussia, and Saxony.

By the time the war ended, Britain was the only state capable of maintaining a sustained global presence, a feat made possible by having assembled the most powerful fleet in the world – a fleet mostly ably led by its officers. The history of this achievement is most skilfully described in this book.

JULES STEWART


Poppyganda
REMEMBER
FORGET
THE HISTORICAL & SOCIAL IMPACT OF A FLOWER
MATTHEW LEONARD
FOREWORD BY LT. COL. ALEX TURNER D.S.O.

POPPYGANDA

Matthew Leonard
Uniform Press, £14.99 (pbk)
ISBN 978-1910500163

The iconic poppy has not always been about remembrance. For centuries the poppy has meant different things to different people. Sumerian texts dating to 2100 BC record the medical application of the plant's resin for pain relief and sedation, while the recreational use of opium, starting in 15th-century China, has turned the poppy into a 'flower of forgetfulness' as much as a bloom of commemoration.

Poppyganda is a concise account of how the advent of industrialised warfare at the beginning of the 20th century changed our perception of military conflict through the horrendous casualties it caused. The book also shows how the media, both traditional and social, together with politicians, are continuing to drive this changing vision today.

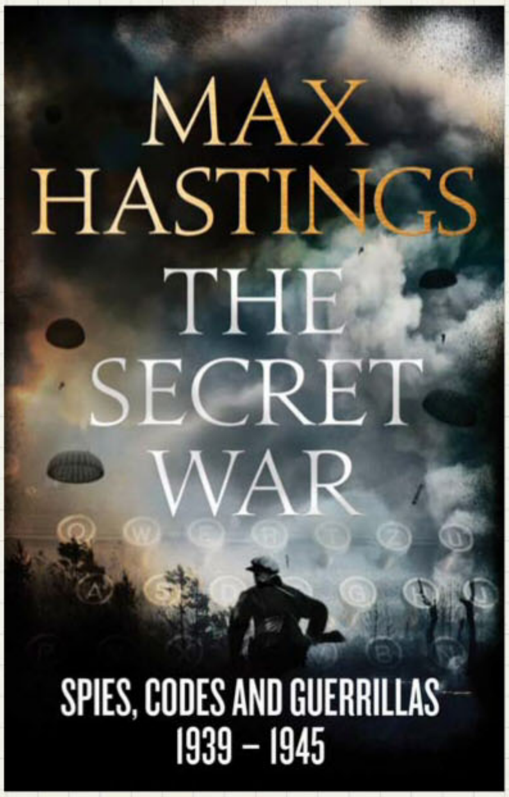
The book introduces us to the alien world of trench warfare, a world where soldiers of both sides were forced into new sensory relationships with their physical surroundings. In moments of calm between battles, soldiers came to reflect on the violated landscape and how those killed were often being subsumed within it.

Leonard presents life within the network of trenches and fortifications of Belgium and northern France as the countryside was transformed into virtual moonscapes. He draws on the experiences of frontline life and landscape which were captured in verse, prose, or on canvas – a common feature of these accounts being that, despite man's best efforts to obliterate all traces of the natural world, some forms not only survived but flourished, foremost among them being the poppy.

He then traces how the plant, growing almost alone in the blood-soaked, broken soil between the trenches, became immortalised throughout the 20th century. He charts its origin as an icon of remembrance in the United States, around the time of the Armistice, and traces its swift adoption across many of the other Allied countries.

As well as looking at the poppy as a symbol of remembrance, Leonard thought-provokingly observes how, particularly since the turn of the century, it has permeated other aspects of our culture, giving rise to many conflicted meanings.

GARY ROSSIN



THE SECRET WAR

Max Hastings
William Collins, £30 (hbk)
ISBN 978-0007503742

Max Hastings' detailed analysis of the espionage war at the heart of World War II has come in for mixed reviews. Across the mainstream media, it has been the subject of glowing reports. For those academics who wish to pick holes in the text, some of its revelations and deductions have been a matter of debate. For the ordinary reader of military history, however, this book provides much rich and rewarding insight.

In writing the book, Hastings clearly has no intention of rivalling the many existing texts that provide more granular detail on subjects such as the contribution made by Bletchley Park. His unique and fascinating angle is the penetration of the German High Command by the Soviet intelligence service. This is brilliantly illustrated by stories of agents such as Foote, Radó, Rössler, and Trepper.

The detailed accounts of how Soviet intelligence operatives ran these human agents reveals the lengths to which some German officers were prepared to go to betray their country. Hastings contrasts this with the incompetence shown by the Soviet's opposite numbers in the German Abwehr, led by Admiral Canaris.

For the keen historian, this raises questions about how Stalin could have failed to appreciate the likelihood of a German invasion of the Soviet Union. A picture of German intentions was clearly emerging from Soviet intelligence before Hitler launched Operation Barbarossa on 22 June 1941.

The operations of the intelligence agencies in the United States and the United Kingdom are more widely known and more thoroughly studied. Hastings' achievement is to set his new research against that material, thereby giving us a much richer understanding of the intelligence world as a whole during World War II.

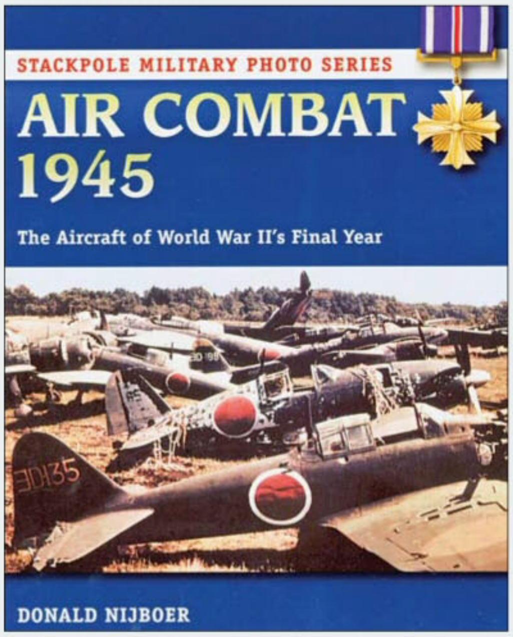
While Stalin's mind may remain a puzzle, Hastings has gone some way to filling in a missing part of the historiography of the Second World War. In that regard, he makes an excellent contribution, and confirms his position as one of the leading contemporary writers of military history.

DAVE SLOGGETT

IN VIEW

MHM'S ROUND-UP OF THE BEST MILITARY HISTORY TITLES

ILLUSTRATED BOOK

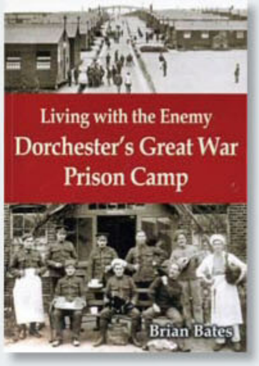

STACKPOLE MILITARY PHOTO SERIES
AIR COMBAT 1945
The Aircraft of World War II's Final Year
DONALD NIJBOER

Air Combat 1945: the aircraft of World War II's final year

Donald Nijboer

Stackpole Books,
£16.99 (pbk)
ISBN 978-0811716062

One of the titles in the Stackpole Military Photo Series, this publication covers aircraft of the last year of World War II – a particularly interesting period for the aviation enthusiast, as the piston-engine fighter was just beginning to give way to the newly developed jet. The book offers lots of interesting action shots, as well as 'portraits' of planes.

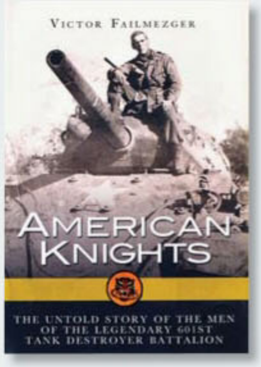

Living with the Enemy
Dorchester's Great War Prison Camp
Brian Bates

Living with the Enemy: Dorchester's Great War Prison Camp

Brian Bates

Roving Press, £9.99 (pbk)
ISBN 978-1906651299

A local-history book, but of interest to anyone intrigued by the fate of German prisoners of war in WWI. At first, the locals treated them with suspicion, but as the war progressed, relations became more cordial. Generally the prisoners were looked after. Well researched and well written, this is an interesting account of a little known chapter in the annals of the Great War.

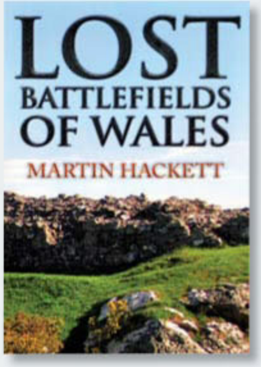

VICTOR FAILMEZGER
AMERICAN KNIGHTS
THE UNTOLD STORY OF THE MEN OF THE LEGENDARY 601ST TANK DESTROYER BATTALION

American Knights: the untold story of the men of the legendary 601st Tank Destroyer Battalion

Victor Failmezger

Osprey Publishing,
£18.99 (hbk)
ISBN 978-1472809353

Who could take on the Panzerwaffe, just a handful of whose tanks could stop entire armoured formations? The US Army created a new type of unit: the Tank Destroyer Battalion. This book contains letters, diaries, and photos from the unit that had the task of fighting Nazi Germany's top tank formations.

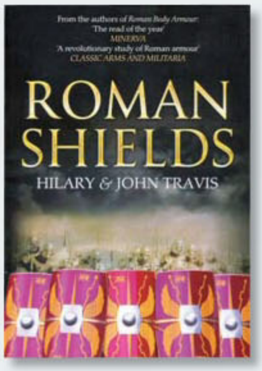

LOST BATTLEFIELDS OF WALES
MARTIN HACKETT

Lost Battlefields of Wales

Martin Hackett

Amberley, £12.99 (pbk)
ISBN 978-1445655222

This covers the military history of Wales from the guerrilla campaigns of the Celts against the Romans, through defensive wars against Saxons and Normans, to the rebellions of the Llywelyns and Owain Glyndŵr against English invaders. This is a guide to the battlefields of these campaigns, but also refers to the English Civil War and the French invasion of Fishguard.

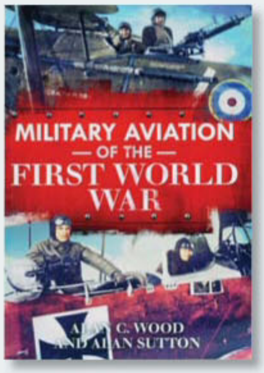

ROMAN SHIELDS
HILARY & JOHN TRAVIS

Roman Shields

Hilary and John Travis

Amberley, £20 (pbk)
ISBN 978-1445655239

Roman Shields is a fascinating book that takes a look at the developing technology and style of Roman shields. The book's authors are both academic archaeologists and keen re-enactors. Exploring the visual and written evidence, they also look closely at the material and manufacture of these most important items of Roman military equipment, even testing them in 'field conditions'.


MILITARY AVIATION OF THE FIRST WORLD WAR
ALAN C. WOOD AND ALAN SUTTON

Military Aviation of the First World War

Alan C Wood and Alan Sutton

Fonthill, £16.99 (pbk)
ISBN 978-1781554227

This is a sound reference book covering aircraft, pilots, and the armed services, dealing with each of the combatant nations in turn. The book looks at the aircraft flown, gives a list of aces, and provides brief biographies of a few of the most famous pilots. Each section has a great selection of photographs and illustrations, making it worthy of its place on the aviation enthusiast's shelf.

WHAT'S ON

EVENTS GUIDE

A PROMOTION OF SOME OF THE BEST EVENTS COMING UP OVER THE NEXT FEW MONTHS

THE HOUSEHOLD DIVISION BEATING RETREAT 2016, COMMONWEALTH - THE BONDS OF FRIENDSHIP COMMEMORATED

Set on the historic Horse Guards Parade, against the magnificent backdrop of St James's Park, The Massed Bands of The Household Division, supported by The Mounted Band of the Household Cavalry, The Pipes and Drums of the Scots Guards, The Drums and Pipes of the Irish Guards, The Band of the Honourable Artillery Company, and The Band of The Royal Yeomanry, will perform a programme of rousing military and contemporary music.

This year, we commemorate the bonds of friendship that thrive between the 53 Commonwealth countries.

Stirring music, precision drill, horses, cannons, lights, and fireworks all combine to showcase the best of British military music and ceremonial pageantry in an unforgettable evening.

WEB: ***www.householddivision.org.uk***
DATES: 8 and 9 June 2016

WHERE: Horse Guards Parade, Whitehall, London

HOW MUCH: Tickets from £15 to £40

THE DIG FOR VICTORY SHOW - A 1940S FAMILY FESTIVAL

The Dig for Victory Show is a 1940s-themed family festival being held near Bristol in North Somerset. Organisers want to 'bring history alive and the generations together with a sense of nostalgia and pride – to learn, to remember, and have fun'.

The event is run entirely by volunteers through a not-for-profit organisation, and supports two charities this year – Walking With The Wounded and Weston Hospicecare.

Come and celebrate the 'best of British' and life in the '40s, with re-enactors demonstrating what life was like in wartime Britain, an exhibition of over 200 original, restored wartime vehicles (including the iconic Sherman tank), live music, swing dance lessons, vintage stalls, children's trail, local food and bar, history talks, make-do-and-mend, classic cars, a campsite, Saturday night Victory dance, and much more.

WEB: ***www.digforvictoryshow.com***
DATES: 11-12 June 2016
EMAIL: info@digforvictoryshow.com

WHERE: The North Somerset Showground, Wraxall, nr Bristol, BS8 1NE

HOW MUCH: Adult tickets £10, family tickets (2 Adults + 2 Children) only £22. Tickets and further information available from the website

COMBINED OPS MILITARY SPECTACULAR

Kent's only military vehicle and air show: a truly unique experience! The event has a variety of vintage and modern aircraft displays, on the ground and in the air.

The Combined Ops show started at Headcorn Aerodrome in 2009 and was an instant success with both the public and the IMPS members. The event was designed to combine all of the military vehicles regularly shown at various events, but with the added bonus of vintage aircraft all in one incredible show.

Every year the event goes from strength to strength, as we add more exciting displays and activities for all the family to see. The show in 2014 saw the only two flying Avro Lancaster bombers doing a full display. In 2015, we had the incredible Vulcan bomber, which not only filled the skies with its sheer size but also its deafening sound.

A great family event that includes static military vehicles, living history re-enactment groups, arena events, military stalls, children's mini tanks, and food stalls, making this a perfect day out.

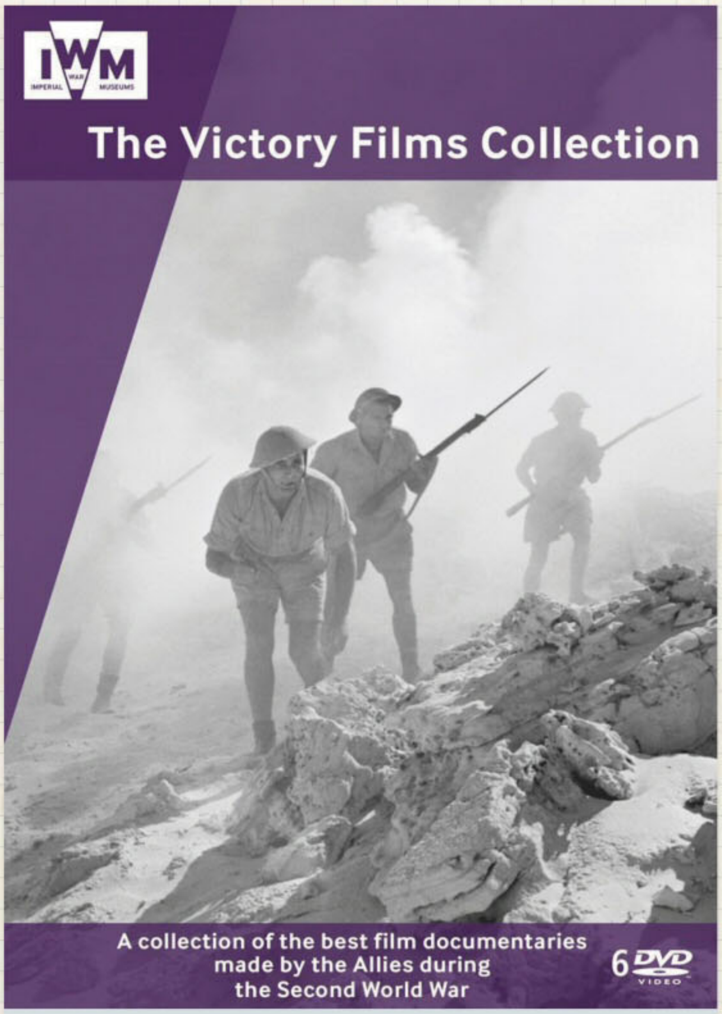
WEB: ***headcornevents.co.uk/event.php?eventid=20***
DATES: Saturday 13 and Sunday 14 August 2016
EMAIL: enquiry@headcornevents.co.uk
WHERE: Headcorn Aerodrome, Shenley Farm Cottages, Headcom, Ashford, TN27 9HX

PHONE: 07769 683345
HOW MUCH: Website discounted tickets at: ***http://headcornevents.co.uk/event.php?eventid=20***
Free Infant = 4 years and under
£6 Child = 5 to 14 years

£9 Adult = 15 years to 59 years
£7 OAP = 60 years and over
£22 = Family 2 x adults and 2 x children
All ticket prices increase after 31 May 2016

WAR ON FILM

TAYLOR DOWNING REVIEWS A CLASSIC WAR MOVIE


IWM
IMPERIAL WAR MUSEUMS
The Victory Films Collection
A collection of the best film documentaries made by the Allies during the Second World War
6 DVD VIDEO

FILM | CLASSIC

DESERT VICTORY

Imperial War Museums
Part of *The Victory Films Collection* box set, £20.00

The Battle of El Alamein, fought between 23 October and 5 November 1942, was a major turning point in the British war effort. Until then, land victories had been few and far between, and victories against Italian forces in North Africa in 1940-1941 had been reversed by subsequent Axis victories led by Hitler's favourite general, Erwin Rommel. So impressive were his triumphs that, even among the soldiers of the British Army, Rommel acquired a reputation for being invincible.

So it was not surprising that, after success at El Alamein, Churchill ordered church bells across Britain to be rung in celebration. The War Office decided to make a popular film about the victory, and the result was *Desert Victory* (Roy Boulting, 1943) – a compilation film produced by the Army Film and Photographic Unit (AFPU) along with the Royal Air Force Film Production Unit. The film was popular at home and in the United States, where it won the Oscar for Best Documentary of 1943.

FILMING THE FRONT

Propaganda films made for the Home Front about battles being fought overseas go back to 1916 and the supremely successful *The Battle of the Somme* (see *MHM* 47), seen by nearly half of the British population at the time.

The AFPU had Army cameramen in North Africa, filming the Eighth Army, and the RAF had a film unit following the Desert Air Force. When this footage was brought back to Pinewood Studios, the AFPU's base, a team immediately begin to assemble it for release. But, in December 1942, head of the AFPU David Macdonald appointed Roy Boulting to turn this footage into a major feature-length documentary to give the battle proper recognition in the story of the war.

Boulting was in his mid-20s and had been conscripted into the Army, but had been released to direct films, first for the Ministry of Information (*Dawn Guard*, 1941), and then with his twin brother John, with whom he directed an independent feature-film called *Thunder Rock* in 1942.

The Boulting brothers went on to become major players in the British cinema of the late 1940s and '50s, directing and producing such hits as *Brighton Rock* (1947), *Lucky Jim* (1957), and *I'm All Right Jack* (1959). But in 1942, Roy Boulting was a fiery, young, left-wing director who, with experience of Army life, was perfectly suited to directing a film dedicated to the soldiers, sailors, airmen, and factory workers who had delivered the crushing victory in North Africa.

Music for the film was written by William Alwyn, a prolific composer of film scores that later included *Fires Were Started* (Humphrey Jennings, 1943; see *MHM* 64). James Lansdale Hodson, a novelist and journalist, wrote the commentary. Hodson had been war correspondent for the *Daily Mail*. He found just the right tone to capture the mood of celebration, without going over the top in his sparing and precise use of words.

THE ARMY FILM AND PHOTOGRAPHIC UNIT

The AFPU was formed in the autumn of 1940 with a production base at Pinewood Studios. David Macdonald, who had been in the GPO Film Unit, headed the unit. Its mission was two-fold: to shoot and record film of the Army in the field for posterity, and to produce short training films and documentaries for the Army.

The first film recorded the commando raid at Lofoten. During 1942, as more skilled filmmakers like Roy Boulting joined the unit, the AFPU raised its ambitions. *Desert Victory* was the first of a series of 'Victory' films that were made of forces in Tunisia and Burma, and of the Allied advance from Normandy to Germany.

Army cameramen were often experienced newsreel or pressmen, and film cameramen and photographers were given the rank of sergeant and worked together, travelling by jeep. They were usually allocated to a single unit for a period of time, and got to know the men they mingled with.

As sergeants, they were ideally placed to get close to the scene of action but without being seen by the men as aloof, as some officers were perceived. Later in the war, AFPU cameramen would be present at every major action of the British Army, landing on the D-Day beaches, jumping with the Paras at Arnhem, and witnessing the liberation of Belsen.

Almost a quarter of AFPU members were killed or wounded during the Second World War. The film and photographs they shot are all held at the Imperial War Museum.

Ref: FLM 2006

Ref: MH 24310

Ref: MH 24311

Ref: MH 24312

M.8513. TRIPOLI
PRESENTATION PRINT
DESERT VICTORY
FOR GENERAL MONTGOMERY
FROM THE PRIME MINISTER
RUSH DO NOT DELAY
DESERT VICTORY
Ref: D 12912

DESERT LIFE

The film begins with a caption to the effect that the Battle of El Alamein was not only a great military triumph but also destroyed 'the myth of Rommel's invincibility'. Over opening shots of the desert expanse, Hodson's commentary reads 'The Western Desert is a place fit only for war; thousands of square miles of nothing but sand and stone.' The harshness of desert life is captured as soldiers are seen covered in flies and, with water so precious, having to wash out of their shaving cups.

The film describes how General Auchinleck led a 400-mile 'fighting retreat' of the Eighth Army from Tobruk to prepared defences at El Alamein along a narrow 40-mile strip between the Mediterranean and the Qattara Depression, 'over which no vehicles can cross'. As soldiers dig trenches, bury mines, and prepare to make a stand only 60 miles from Alexandria, they prepare for a battle that will be 'as important as the Battle of Britain'. It is clear that British soldiers, along with Australians, New Zealanders, Indians, and South Africans, must now hold the line.

Churchill is seen wearing a solar topee and giving his famous V-sign, amid cheering troops, on his visit to Egypt in August 1942. In reality, Churchill realised there was something desperately wrong with morale in the Eighth Army and decided to replace Auchinleck.

He appointed General Alexander as Commander-in-Chief. Alexander was an aristocrat, an ex-Guardsman, always immaculately dressed, and had film-star looks. Churchill's first choice of new commander of the Eighth Army, General Gott, was killed when his plane was shot down, so the Prime Minister accepted the suggestion of the Chief of the Imperial General Staff and appointed General Bernard Law Montgomery as commander.

PREPARING FOR BATTLE

Montgomery immediately set about reviving the morale of his men. The film shows soldiers going through every form of physical exercise, as well as training in hand-to-hand combat. Meanwhile, vast supplies of shells, armour, and aircraft arrive: ships bring tanks, artillery, and reinforcements on a 12,000-mile trip around the Cape of Good Hope – 'the longest supply line of any army in history' – and President Roosevelt sends 400 new Sherman tanks to North Africa, where they would have their baptism of fire. Hundreds of aircraft arrive by sea in West Africa, and are assembled and flown across the continent to Egypt.

The Home Front is depicted as making a vital contribution back in Britain. War factories work at full capacity, as women labour alongside men on the production lines. The commentary notes that 'in no country are women so thoroughly organised for war'.

The film briefly covers what became known as the Battle of Alam el-Halfa, during which Rommel launched a final attack to try to break through to Cairo but failed, leaving behind wrecked tanks, corpses, and graves. From this point, the initiative passed to the Allied armies.

Alexander is seen planning the offensive with Air Marshal Tedder and Admiral Harwood. We are told this will be a 'combined operation' with complete 'unity of command'. According to the

»

THE MONTY LEGEND

Bernard Law Montgomery had been a staff officer in the First World War, and when he took a command in the Second World War he was determined to avoid losses of the scale he had witnessed on the Western Front. His philosophy was never to take offensive action before having an overwhelming majority of men, guns, and materiel. He was lucky to take command of the Eighth Army when exactly that was coming about, and, by October 1942, he had almost double the number of men and tanks available to Rommel.

Monty was something of a loner who seldom behaved in the manner of a general. He preferred to be near the action, and in the desert he commanded from a set of caravans that were constantly on the move. He had an assured style and recognised the role of the media, always making himself available for a photographer or a cameraman.

Filmed wearing his trademark Tank Corps beret (again, very unlike traditional British commanders), his depiction in *Desert Victory* marks the beginning of the Monty legend that would become so important in Britain, and which would soon turn him into the best-known British general of the war.

Images: © Imperial War Museums

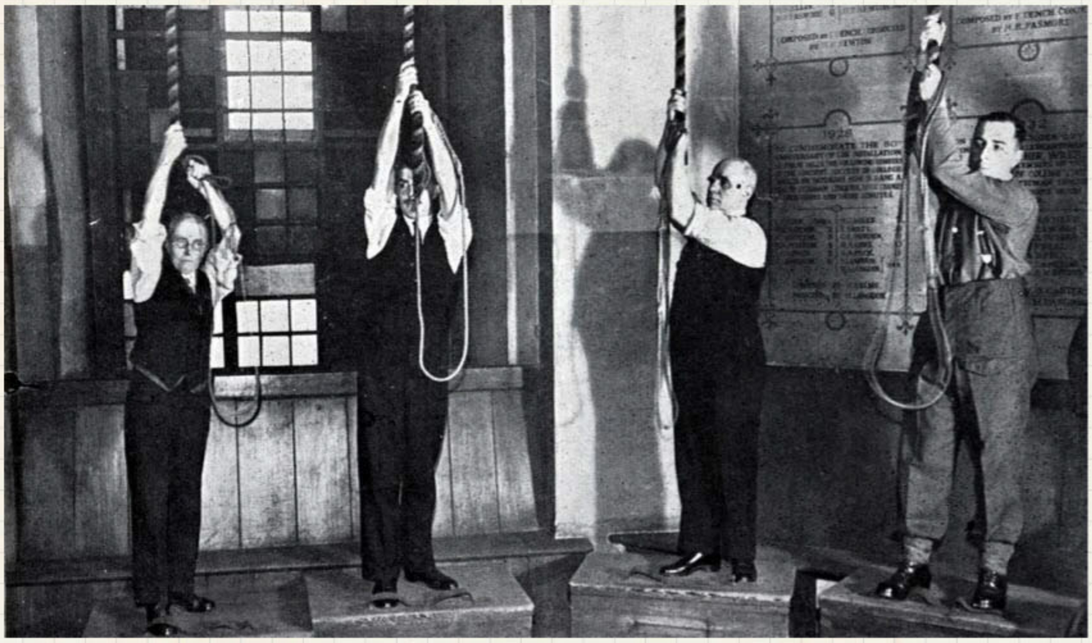


Image: WIPL

LEFT Church bells are rung for the victory at Alamein.

commentary, Montgomery realised that 'a citizen army will fight best when it knows what is going on', and, as plans are made, so they are passed down the ranks until every man knows what is expected of him.

The film moves towards its climax, with a vast arsenal of guns and equipment being assembled in the desert. Allied aircraft harass the enemy lines. British aircraft and submarines attack Rommel's supply lines. Gun-camera footage shows attacks on Axis shipping in the Mediterranean.

Here the important role played by the code-breakers at Bletchley Park remained unrecognised for many years. By deciphering German Enigma signals, they learned the contents and the departure date of every ship and convoy leaving Italy to supply the Afrika Korps. Even without this knowledge, the commentary explains that nearly 80% of everything shipped from Italy ended up at the bottom of the sea (in fact, the figure was more like 60%).

There is then a period of calm as soldiers relax, write home, and cook food, while others take a swim in the sea. On one long, shimmering musical note, the sun goes down over the desert. The final images we see are of tanks assembling and gunners preparing. It is the moonlit night of 23 October. We are told that the battle will commence with a 30-minute artillery bombardment during which sappers will clear minefields and lay white tapes to guide the infantry forward. The pictures go to black, but outlines of soldiers are dimly visible. Then, in a close-up, an officer screams 'fire!', and an unbelievable din begins, with artillery flashes lighting up the surrounding men, guns, and vehicles. For what seems like an eternity, the guns fire in the darkness and shapes move forward. One of the decisive battles of the war has begun.

THE REALITY OF DESERT WAR

The cameramen of the AFPU were operating with considerable difficulty in the desert war. Much of the action took place at night, when their cameras could get no exposure. And much of it happened over vast distances that their lenses were quite unable to capture.

Peter Hopkinson, an AFPU cameraman with the 10th Armoured Division at El Alamein, later wrote that a tank battle in the desert was like a battle at sea: it took place over such a huge area that it was impossible to see, or to understand, what was going on. He had taken lots of footage of shells and supplies being brought forward, and of men driving their tanks up and down the desert, but, when day broke, the confusion seemed so overwhelming that at first he could find nothing much to film.

So the makers of *Desert Victory* resorted to staged scenes to convey the nature of the assault that launched the Battle of El Alamein. These were filmed on a set at Pinewood some months after the battle. They show men with fixed bayonets advancing through the darkness. Most memorably, they show a Scottish piper playing 'Highland Laddie', leading men through the cleared minefields. The footage is very dramatic, and has been used in television documentaries many times since. But it was all faked on a studio set. It was the only way the filmmakers could portray anything like the reality of the battle.

For several days, Hopkinson and the other AFPU cameramen filmed shots of knocked-out tanks, and repeatedly filmed 25-pdrs and heavier howitzers firing. As the battle progressed, they managed to record some powerful images of infantry soldiers advancing into smoke, and some of these were copied and restaged at Pinewood.

One group of Sherwood Foresters later recalled that while having a well-deserved rest by a knocked-out German tank, a jeep drew up and two men leapt out to hand them German Army helmets. The men asked the British soldiers to put on the helmets and to come out from behind the burning tank with their hands up. As soon as they did so, the soldiers realised they were being filmed!

PLAN OF ATTACK

Desert Victory uses maps to explain the overall plan of attack. Montgomery employed diversions in the south of the battlefield to convince the Germans that his principal thrust would come there, whereas, in fact, the main assault came in the north. The film faithfully records the series of attacks and counterattacks of the next ten days, including the battle for Kidney Ridge, and the breakthrough of the Australian 9th Division towards the sea. After 11 days of intense fighting, the German and Italian resistance collapsed. In a British factory, female workers cheer as news of the breakthrough comes over the radio.

From Berlin, Hitler orders that there will be no retreat, only victory or death. But Rommel realised that, in order to fight another day, he had to withdraw his army. Under constant pursuit from the Desert Air Force, Rommel managed to retreat along the single coastal road. *Desert Victory* reports the details of the retreat to Mersa Matruh, Sidi Barrani, Tobruk, and Benghazi.

The film ends with the victory parade in Tripoli two months later, after an advance of 1,400 miles. There is a shot of Churchill taking the salute. Boulting re-recorded an extract of his Tripoli speech at Pinewood, and his words end the film by proclaiming the victory to be 'a feat unparalleled in military history'.

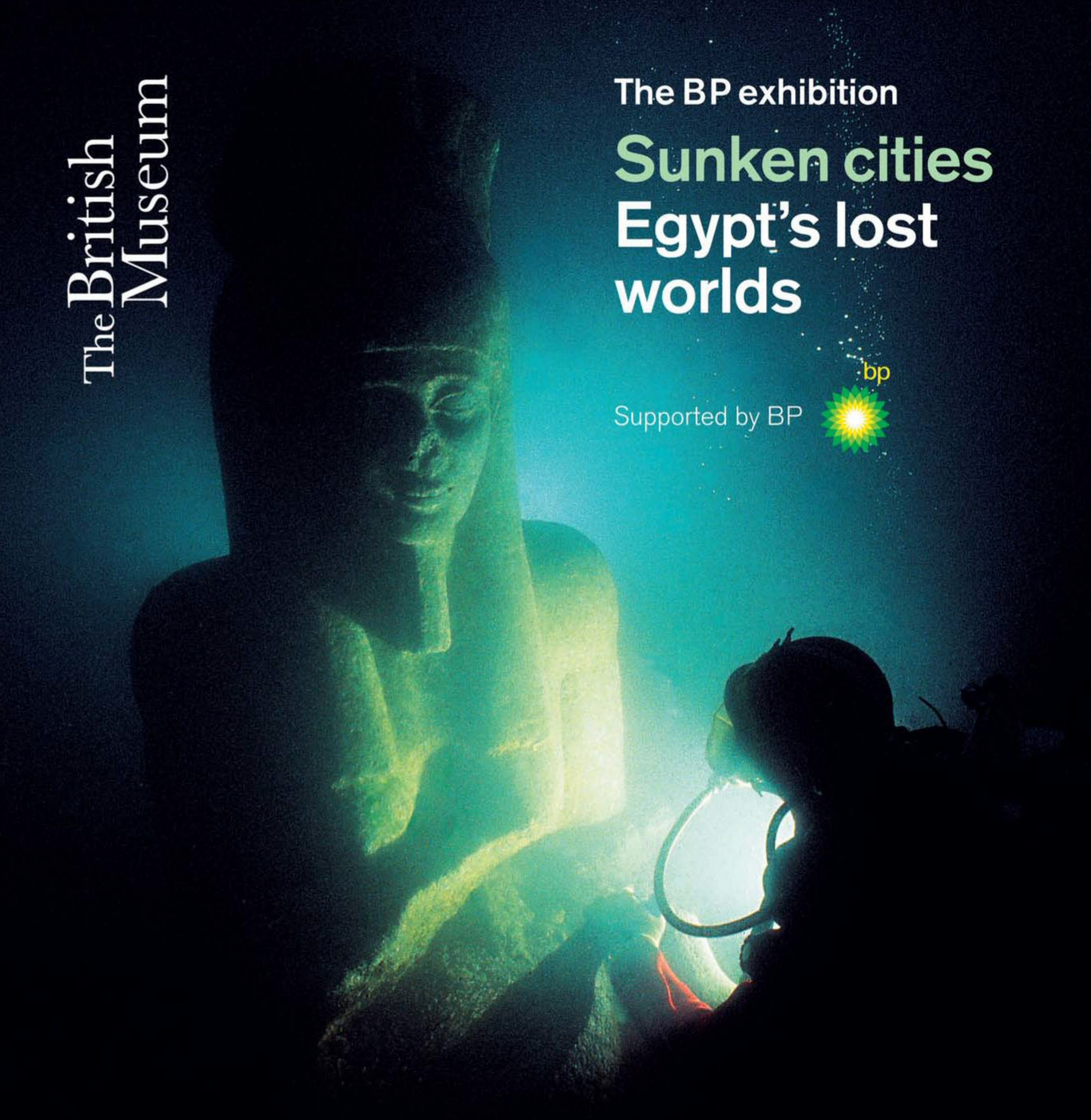
Desert Victory still stands up extraordinarily well today, as an intelligent, well-paced documentary that uses great footage, is very dramatic, and packs a real punch. Many of its images are familiar because they have been used in endless television documentaries on the war in the Western Desert. Although the music may seem a little bombastic to modern ears, the commentary is sharp, concise, and well honed, enhancing the pictures it accompanies.

The film makes a clear link between the armed services overseas and the work of men and women in the war factories at home. This was part of its propaganda message, to show how hard work at home brought victory on the battlefield.

Although ample credit is given to the field commanders, particularly Alexander and Montgomery, it is entirely clear that the real heroes are the soldiers and airmen who fought together in North Africa. In this sense, *Desert Victory* is a celebration of the citizen army that had been formed to fight the people's war. •

DESERT VICTORY (1943)

An Army Film and Photographic Unit and RAF Film Unit production. **Producer:** David Macdonald. **Director:** Roy Boulting. **Music:** William Alwyn. **Commentary:** J L Hodson. The Imperial War Museum and Simply Media have issued a DVD box set, *The Victory Films Collection*, that includes *Desert Victory*, *Tunisian Victory* (1943), *Burma Victory* (1945), and *The True Glory* (1945), plus documentaries from the IWM archive.



The British Museum

The BP exhibition

Sunken cities
Egypt's lost worlds

Supported by BP

'the stuff of legend'
The Daily Telegraph

Book now

Opens 19 May 2016
Open late Fridays
Members/under 16s free

Organised with the Hilti Foundation and the
Institut Européen d'Archéologie Sous-Marine

Photo: Christoph Gerigk.
© Franck Goddio/Hilti Foundation.

MUSEUM

REVIEWING THE BEST MILITARY HISTORY EXHIBITIONS

WITH **HAZEL BLAIR**

01

VISITOR
CENTRE
FREE

02

HANGAR
TOUR
£7

03

Photos (this page): Clive Rowley

VISIT

BATTLE OF BRITAIN MEMORIAL FLIGHT VISITOR CENTRE

- **Dogdyke Road, Coningsby, Lincolnshire, LN4 4SY**
- 020 7940 6300
- *www.lincolnshire.gov.uk/visiting/museums/battle-of-britain-memorial-flight*
- Open 10am-5pm Mon-Fri, and at weekends/bank holidays on 29-30 May, 30-31 July, and 29 August 2016

The Battle of Britain Memorial Flight has conducted thousands of flypasts at events up and down the country, taking part in over 100 airshows per year. The Flight was formed in 1957 to commemorate the RAF's defence of Britain against the Luftwaffe in 1940. It subsequently became a memorial to those who lost their lives while serving with the RAF across the whole of the Second World War, and now commemorates members of the RAF whose lives have been lost in all conflicts, past and present.

A WORKING BASE

Comprising 12 airworthy warbirds, the Flight includes six Spitfires, two Hurricanes, a Dakota, and one of only two Avro Lancasters known anywhere in the world to be capable of flight. Two Chipmunks, used as training aeroplanes, make up the full complement. Their airborne activities are certainly spectacular, but a trip to the BBMF hangar and visitor centre gives one an extraordinary opportunity to view these historic aircraft up close.

This is not just a hangar full of aeroplanes. RAF Coningsby is a working base: Eurofighter Typhoons thunder overhead, and visitors are invited to look under the skin of the historic aircraft as they are maintained and preserved by RAF engineers. Aircraft are moved around the hangar on a regular basis, and, though once produced in their thousands, each BBMF aircraft has its own story to tell.

These stories have been meticulously researched and documented, and some can be read in the visitors' guidebook, but it is the personal tour of the hangar that makes a visit to the BBMF centre so special. Armed with binders full of contemporary photographs and documents, volunteer guides are equipped to share a wealth of knowledge about the aircraft and their crews.

MUSEUM WITHOUT WALLS

'This is a museum without walls,' explains retired Squadron Leader Clive Rowley. Clive was an RAF fighter pilot for 36 years, and he flew the Flight's Spitfires and Hurricanes from 1996 to 2007. He hung up his flying gloves last year, but continues to volunteer with the BBMF, hosting tours of the hangar and researching the history of the aircraft.

The Flight's predominance of Spitfires reflects the important role these aircraft played during WWII, and their iconic status. Of the six Spitfires in the Flight, the Mark IIa P7350 is the most thrilling to behold: it is the oldest, original, airworthy Spitfire in the world, and the only one from the Battle of Britain that is still flying today.

This type of Spitfire met its match in the Messerschmitt Bf 109E, but, in general, Spitfires were able to fly faster than most of their contemporaries, and were popular among pilots and the general public. Attacked by a group of Bf 109s in October 1940, P7350 was hit on the left wing, leaving pilot Ludwik Martel badly wounded.

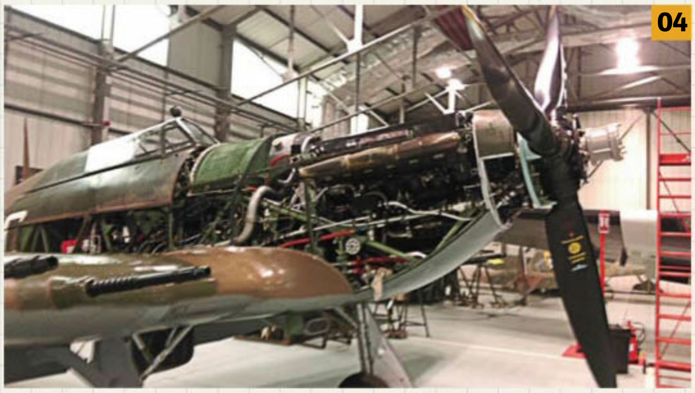
But both survived the war: the Spitfire was restored to flying condition for its appearance in Guy Hamilton's *Battle of Britain* (1968), and Martel died aged 91. On my visit, the aircraft's engine cowlings had been removed to reveal its Rolls-Royce Merlin 27l engine, as well as its petrol tank (which is positioned directly in front of the pilot, on the aircraft's centre of gravity).

SEEING DOUBLE

Clive relayed a most intriguing tale, however, when we reached the Flight's C-47 Dakota ZA947. Built in the USA, the BBMF's Dakota served in Canada during WWII. But visitors are not only introduced to the aircraft on display: some aeroplanes are exhibited wearing other aeroplanes' colour schemes. As such, ZA947 now resembles FZ692 Kwicherbichen of 233 Squadron, one of the first Douglas Dakotas deployed to evacuate casualties from France in the wake of D-Day.

Nursing orderlies Corporal Lydia Alford, LACW Edna Birkbeck, and LACW Myra Roberts (dubbed the 'Flying Nightingales' by the press) were on the first three flights across the Channel, becoming the first British women to fly into a warzone on air-ambulance duties. But, carrying war supplies and ammunition on their way out, their aeroplanes were prohibited from carrying the Red Cross symbol.

Similarly, the last Hurricane ever built, the BBMF's Mk IIC PZ865, was originally painted with the inscription



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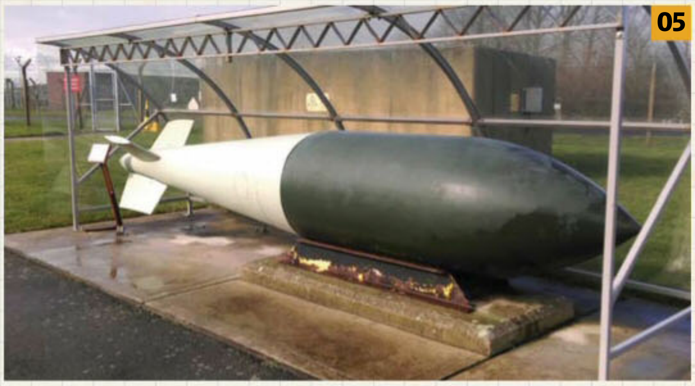


05

06

07

MEMORIAL FLIGHT
ROYAL AIR FORCE
LEST WE FORGET

PICTURED ON BOTH PAGES:

1. Battle of Britain Memorial Flight Spitfires undergoing winter servicing.

2. The Lancaster flanked by two Spitfires.

3. The Flight's Avro Lancaster dominates the hangar.

4. Under the skin of Hurricane PZ865.

5. A 'Tallboy' bomb outside the hangar.

6. Engineers working on Spitfire P7350.

7. The Flight's motto, 'Lest We Forget', is indicative of its commemorative status.

CONINGSBY, LINCOLNSHIRE

MORE MUSEUMS IN LINCOLNSHIRE

LINCOLN CASTLE

Originally the site of a Roman fortress, Lincoln Castle was built in the wake of the Norman Conquest. Visitors can listen to an audio guide as they walk along the castle's curtain wall, while taking in 360° views of Lincoln, and admiring the city's majestic cathedral. The castle is open throughout the year.

LINCOLNSHIRE AVIATION HERITAGE CENTRE

Situated on a WWII airfield, Lincoln Aviation Heritage Centre has been restored to its original design. The site is home to the RAF Escape Museum, the airfield's original control tower, military vehicles, and a variety of displays and artefacts. Visitors can even take a taxi ride in a real Lancaster bomber. The centre is closed on Sundays.

RAF SCAMPTON HERITAGE CENTRE

Home of the Red Arrows and the former home of the Dambusters, RAF Scampton's heritage centre is housed in an original WWII hangar. The collection includes over 400 artefacts, including a Blue Steel missile. Entry is free, but the centre is not permanently manned. Those wishing to visit should contact the centre in advance.

'The Last of the Many', but this 'Hurri-bomber' now resembles fighter ace and Canadian RAF pilot Jimmy Whalen's Mk IIC HW840.

By 1944, Whalen had shot down three Bf 109s and three Japanese Navy 'Val' Type 99s – victories he commemorated in nose art that he himself designed and applied. Whalen was killed flying another aircraft over Japanese-occupied jungle on 18 April 1944, but his original nose art is hung on a wall in the BBMF head-quarters. PZ865 thus wears a design that features three swastikas and three Japanese *hinomaru* ('circle of the sun') symbols, separated by a clenched fist holding a lightning bolt, all of which is surrounded by a laurel wreath.

HEAVY BOMBERS

But, with a wingspan of 31m, it is Avro Lancaster B1 PA474 that dominates the hangar. (Visitors should note that this aircraft will be missing from the collection from October 2016 until spring 2017, while it undergoes servicing at Duxford.)

WWII saw the loss of 3,345 Lancs during operations, although this particular aircraft, completed in 1945, did not see any action. But it is representative of those that did, and currently wears the colour scheme of Squadron 617's DV385, 'Thumper Mk III', which sunk the Kriegsmarine battleship *Tirpitz* in 1944.

Built to fly with one pilot rather than two, these aeroplanes were designed to reduce pilot loss-rates, while dropping powerful 'Tallboy' bombs on ever-larger targets. Looking up into the aircraft's cavernous bomb bay, it is not difficult to imagine the scale of destruction wreaked by these heavy bombers.

Impressive as these aircraft are, they come with some tragic human stories: WWII saw the loss of around 22,000 men while flying Lancs. Operations were particularly gruelling for the aircraft's 'Tail-end Charlie', crammed into a Perspex bubble, alone at the back of the aeroplane. Not only were these men the most vulnerable of the Lancaster's crew (life expectancy was just five sorties), they were also exposed to the elements, having to deal with temperatures as low as -30° or -40°.

Sergeant Rob Pierson, who was 19 when he operated the rear guns of a Lancaster during WWII, recalled, 'My face was exposed to the slipstream – the temperature of which plummeted the higher we went – but it was better to freeze than not to see the enemy.' Stories like these breathe life into these antique flying machines, many of which were prised from the scrap-dealer's hands not long after the end of the war.

Access to the hangar is by guided tour only, and the tours last an hour to an hour and a half. Most guides have some sort of military background, but tours can be adapted for novices and aircraft aficionados alike. With airworthy aeroplanes, a variety of knowledgeable guides, and ever-changing aircraft colour schemes, it is virtually guaranteed that no two trips to the BBMF hangar will be the same.

A visit is highly recommended. Entry to the visitor centre is free, and this area includes a shop and a cafe, as well as a small exhibition space with interpretative boards and a modest selection of artefacts.

There are a variety of other military aviation museums nearby, and visitors might also wish to stop off at the nearby Petwood Hotel, formerly the Dambusters' Officers' Mess. Its Squadron Bar is filled with a variety of objects and images relating to the Second World War history of Squadron 617, and is the ideal place to relax after a long day exploring Bomber County. •

LISTINGS

THE BEST MILITARY HISTORY EVENTS, LECTURES, AND EXHIBITIONS

£12.50 PER DAY

EVENT

TEMPLE AT WAR

14-15 May 2016

Cressing Temple Barns, Braintree,
Essex, CM77 8PD

www.templeatwar.co.uk
07907 594 307

The Temple at War living history show will host over 600 re-enactors and an array of military vehicles. The event will include 1940s entertainment from the Hotsie Totsies, and a selection of trade and vendor stalls from across the UK. Visitors can learn about the last 100 years of British military history through a range of artefacts on display. Those attending on Saturday will be treated to an impressive Battle of Britain Memorial Flight fly-past.

EXHIBITION

FASHION ON THE RATION: 1940S STREET STYLE

£6 ENTRY

27 May 2016-1 May 2017

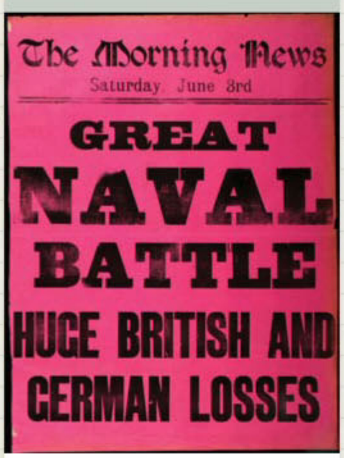
IWM North, The Quays, Trafford Wharf Road, Manchester, M17 1TZ
www.iwm.org.uk
0161 836 4000

To mark the 75th anniversary of the introduction of clothes rationing in Britain, IWM London hosted an exhibition dedicated to wartime fashion – which will now decamp to IWM North. The exhibition explores how, despite rationing, wartime fashion flourished. By customising their clothes, men and women continued to assert their individuality during the war. Objects on display will include clothes, accessories, photos, film, documents, art, and letters, some of which have not been displayed before.

but Salvage your RUBBER
Rubber into Aircraft – Jacqmar London
Bedsteads into Bullets – Jacqmar London
Paper into shells bones into ... Metal into Tanks
... and save shipping

Image: © IWM EPH 3931 Jacqmar scarf, 'Salvage Your Rubber' (1940-1945)

EXHIBITION



The Morning News
Saturday June 3rd

GREAT
NAVAL
BATTLE
HUGE BRITISH AND
GERMAN LOSSES

36 HOURS: JUTLAND 1916, THE BATTLE THAT WON THE WAR

From 12 May 2016

National Museum of the
Royal Navy, Portsmouth,
HM Naval Base (PP66),
Portsmouth, PO1 3NH

www.nmrn.org.uk
02392 727 582

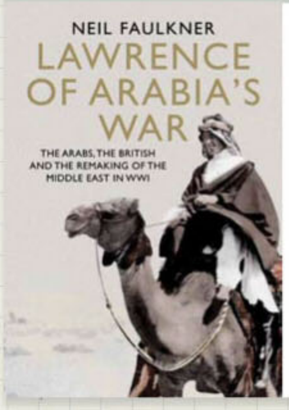
£10 ENTRY

This blockbuster exhibition will commemorate the largest naval battle in history: the Battle of Jutland. Fought in the North Sea from 31 May to 1 June 1916, the Battle of Jutland resulted in the loss of 6,094 British and 2,551 German lives.

But this exhibition will present the battle as a tactical and strategic British victory, despite the number of British casualties, because only two British dreadnoughts were damaged at Jutland. By the end of the battle, the British had 23 dreadnoughts and four battlecruisers, while the Germans had just ten dreadnoughts.

Objects on display will include the personal effects of men and women involved in the battle, and three guns that saw action at Jutland. The exhibition will run for three years, and includes artefacts on loan from the Imperial War Museums.

LECTURE


NEIL FAULKNER
LAWRENCE OF ARABIA'S WAR
THE ARABS, THE BRITISH AND THE REMAKING OF THE MIDDLE EAST IN WWI

LAWRENCE OF ARABIA'S WAR

FREE ENTRY

23 May 2016

Edmond J Safra Lecture Theatre,
Ground Floor, King's College London,
The Strand, London, WC2R 2LS

Liar and charlatan, or military genius? Agent of British imperialism, or advocate of Arab nationalism? The debate about T E Lawrence has raged for a century. Following ten years' fieldwork in the Arabian desert, Bristol University's Neil Faulkner reassesses the man, evaluates his achievements, and offers new insight into the ongoing Middle Eastern crisis. Neil will be selling copies of his new book, *Lawrence of Arabia's War*, at the lecture. This evening event begins at 6.30pm.

EVENT

£6 ENTRY

AMERICAN AIR SHOW

28-29 May 2016

IWM Duxford, Duxford, Cambridge, CB22 4QR
www.iwm.org.uk
01223 835 000

Celebrating the reopening of the transformed American Air Museum, the American Air Show will tell the story of American and British collaboration over 100 years. The air show will emphasise the impact of American forces on Duxford and the surrounding area during the First and Second World Wars, and will feature stories from the Cold War through to the present day.

The event will include flying displays and living history re-enactments, and visitors will have the opportunity to hear the voices of those men and women who have lived and worked at Duxford across eras. Tickets must be booked in advance.

EVENT

£14 ENTRY

WWII HANGAR DANCE

14 May 2016

The Helicopter Museum, The Heliport, Locking Moor Road, Weston-super-Mare, Somerset, BS24 8PP
www.helicoptermuseum.co.uk
01934 635 227

This annual charity dance at will see aircraft hangars rock to the sound of music from the Second World War. Guests will be invited to dance alongside historic aircraft and wartime decorations, and museum staff and volunteers will be dressed in period costume. An 'anti-rationing' buffet will be laid on for guests, and a licensed bar will serve a range of wines, beers, and soft drinks throughout the evening. Smart dress is requested (period attire is optional).

EXHIBITION

PEACE SIGNS

FREE ENTRY

26 May-4 September 2016

IWM London, Lambeth Road,
London, SE1 6HZ
www.iwm.org.uk
01970 633 087

Built around Edward Barber's *Peace Signs* series, this exhibition of more than 40 photographs explores the anti-nuclear movement in 1980s Britain. They were originally taken to attract media attention to the movement, and have rarely been seen since. The displays will reinterpret these photographs, taken at protests staged at sites including RAF/USAF Greenham Common, Westminster, Trafalgar Square, and the City of London. Viewed together, Barber's images are a social record of individual and collective responses to war in the modern era.

WAR STOCKS MOVE UP

Image: © Edward Barber, *'Stop the City' protester at the Bank of England, City of London* (1983)

DATES TO REMEMBER

1 MAY 2016

Guided Walk: Battle of Lansdown, 1643

Lilliput Farm, Lower Hamswell,
Bath, BA1 9DE
www.battlefieldstrust.com
£5

Ian Chard will give a guided tour around the civil war battlefield of Lansdown. The walk will depart at 1pm from Lilliput Farm, and it involves one steep hill. Tea can be bought from the farm, and proceeds will be donated to a local charity.

3 MAY 2016

Gettysburg, 1863

The Black Watch Castle & Museum, Balhousie Castle,
Hay Street, Perth, Scotland,
PH1 5HR
www.theblackwatch.co.uk
01738 638 152
£9

The Battle of Gettysburg in 1863 was the bloodiest of the American Civil War. Join historian Roger Cartwright as he explores the history of the battle in this evening lecture. The lecture commences at 7pm and is preceded by a drinks reception at 6.30pm.

17 MAY 2016

The Iraq War, 2003

Museum of London,
150 London Wall, London,
EC2Y 5HN
www.gresham.ac.uk
FREE

This lecture by Vernon Bogdanor, Emeritus Gresham Professor of Law, is part of his lecture series entitled 'Political Crises since 1945'. It will consider the political context surrounding Britain's involvement in the war in Iraq, reflecting on the government's relationship with Parliament, and the public's reaction to the decision to support the war.

MUSEUM

SOLDIERS OF OXFORDSHIRE MUSEUM (SOFO)

Oxfordshire's newest museum is a hidden gem telling the stories of how conflict has affected the county, using the personal narratives discovered in the archives of not just the two county regiments but also those of civilians from all walks of life who have been affected by the impact of war.

Many of the exhibitions are inspired by the moving stories of all the armed services, from the Liberation of Bergen-Belsen, remarkably told by everyday soldiers and the people they liberated, to the immersive experience of stepping into a recreated section of a Horsa Glider whilst listening to the personal memories of D-Day soldiers as they prepared for action.

Our visiting exhibition 'Pilots of the Caribbean' runs from May until September. On loan from RAF Museum Hendon, the exhibition charts the experiences and influence of volunteers of African heritage in the Royal Air Force.

ADDRESS: Park Street, Woodstock, OX20 1SN
(in the grounds of the Oxfordshire Museum)
TEL: 01993 810 210
EMAIL: frontofhouse@sofo.org.uk

WEB: ***www.sofo.org.uk***
OPENING TIMES: Tuesday-Saturday 10am-5pm
Sunday 2-5pm (last admission 4.15pm)

Working Lives
Hert
Shopping
Homes Big and Small
Shopping
GRAVESONS

HERTFORD MUSEUM

Hertford Museum is the collecting museum of the Hertfordshire Regiment and charts its history and antecedent volunteer forces from the Boer War to the Regiment's amalgamation with the Beds & Herts in 1961.

Wonderful objects, stories, and personal audio accounts form part of the museum's permanent displays, and reserve collections of equipment, uniform, records, oral histories, and a wealth of photographs are available on request to researchers.

A recent HLF funded project 'From Bull Plain to the Battlefields' charted the experience of the Hertfordshire Regiment and the district during the First World War, and a book of the same title is available from the museum.

A legacy of the project is an informative website focusing on specific collections and sharing the stories they tell of this astonishing territorial force.

See *www.hertfordshireregimentmuseum.org* for details. Hertford Museum maintains a free admission policy.

ADDRESS: 18 Bull Plain, Hertford, SG14 1DT
TEL: 01992 582686
EMAIL: hertfordmuseum@btconnect.com

WEB: ***www.hertfordmuseum.org***
www.hertfordshireregimentmuseum.org
OPENING TIMES: Tuesday-Saturday 10am-5pm

HACK GREEN SECRET NUCLEAR BUNKER

Discover the secret world of nuclear government. For over 50 years this vast underground complex remained secret, hidden on the outskirts of a sleepy Cheshire town.

Declassified in 1993, the 35,000 sq ft underground bunker would have been the centre of regional government had nuclear war broken out. It was built in the 1950s as part of a secret radar network codenamed 'ROTOR'.

The bunker today offers a warm welcome to anyone looking for a different day out. Tons of authentic equipment in original settings fire the imagination, giving an exciting glimpse into England's dramatic Cold War past.

ADDRESS: French Lane, Baddington, Nantwich, Cheshire, CW5 8AL
TEL: 01270 629 219
EMAIL: coldwar@hackgreen.co.uk
WEB: ***www.hackgreen.co.uk***
OPENING TIMES: March-November: Monday-Sunday 10am-5pm.
For winter opening times see website or call infoline.

GUIDE

WITH HUNDREDS OF MILITARY MUSEUMS IN THE UK ALONE, HOW DO YOU KNOW WHICH ONE WILL BEST SUIT YOUR INTERESTS? HERE IS A PROMOTION OF SOME OF THE BEST MUSEUMS AND EXHIBITIONS TO VISIT THIS YEAR.

DAVIDSTOW AIRFIELD AND CORNWALL AT WAR MUSEUM

This extensive museum stretches across 18 buildings in 2 acres. It covers the history of all three services from 1914 to the present. Visit the officers' site on the WWII airfield, and see aircraft, vehicles, weapons, personal items, and more. Individual buildings have displays and information on every RAF station that existed in Cornwall, together with coverage of the Royal Navy and the Army.

ADDRESS: Davidstow Airfield and Cornwall at War Museum, Davidstow, Camelford, Cornwall, PL32 9YF
TEL: 07799 194 918
EMAIL: steve@cornwallatwarmuseum.co.uk

WEB: ***www.cornwallatwarmuseum.co.uk***
OPENING TIMES: School and bank holidays; every day in July, August, and September; Wednesday to Saturday in April, May, June, and October: 10am-5pm

RAF AIR DEFENCE RADAR MUSEUM

In the summer of 1940, unknown to almost everyone, radar was playing a vital role in the success of the RAF's Battle of Britain pilots against the Luftwaffe. Established in 1941, the once 'Top Secret' base at Neatishead has remained pivotal in Air Defence from WWII, right through to the Cold War, and it still remains an RAF station even today. The museum charts the amazing history of radar from its inception right through to the Cold War. Experience the Operations Rooms, touch the equipment, and feel the fear.

ADDRESS: RAF Air Defence Radar Museum, RRH Neatishead, nr Horning, Norfolk, NR12 8YB
TEL: 01692 631 485
EMAIL: curator@radarmuseum.co.uk

WEB: ***www.radarmuseum.co.uk***
OPENING TIMES: Tuesdays and Thursdays, the second Saturday of the month, bank holiday Mondays, and Easter Saturday to end November: 10am-5pm

RAF MUSEUM

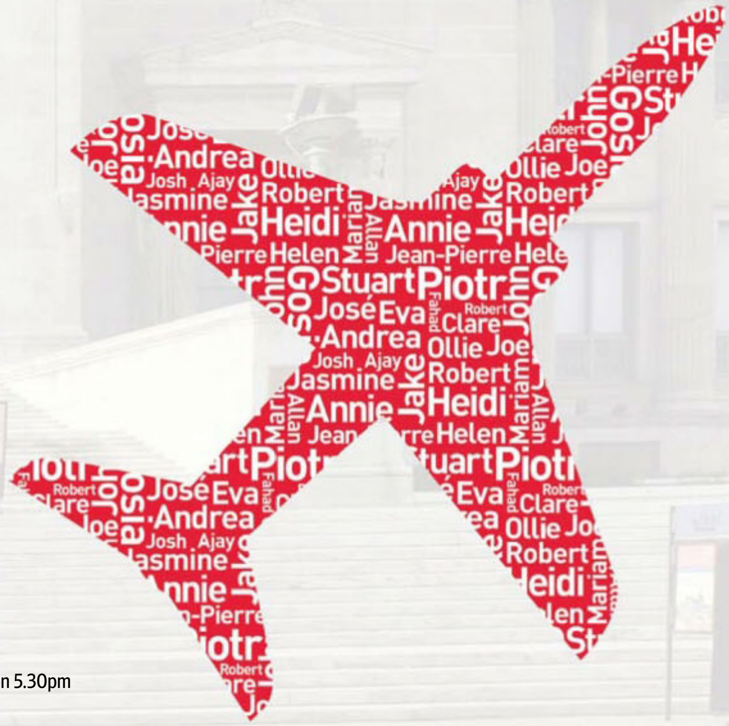
Get your name on a Red Arrows plane and support the RAF Museum.

2018 marks the centenary of the Royal Air Force. The award-winning RAF Museum will celebrate and commemorate this anniversary through a major transformation of our visitor experience, sharing the RAF story on site and online.

Accordingly, the Museum is offering a once-in-a-lifetime opportunity to have your name, or the name of a loved one, on a Red Arrows Hawk Jet for a donation of just £30. The Hawk will be flown across the globe during the Red Arrows' 2017 aerial display season.

All of your donation to Names on a Plane will directly support the RAF Museum's RAF Centenary Programme, details of which can be found on the Museum's main website *www.rafmuseum.org* or by signing up to the Museum's Centenary E-newsletter, the link for which can be found at the bottom of each webpage.

Put your name on a plane now at *www.namesonaplane.org*



ADDRESS: Royal Air Force Museum London, Grahame Park Way, London, NW9 5LL
TEL: 020 8205 2266

EMAIL: london@rafmuseum.org
WEB: ***www.rafmuseum.org***
OPENING TIMES: 10am-6pm, last admission 5.30pm

IN THE NEXT ISSUE

ON SALE **12 MAY**

LAWRENCE OF ARABIA'S WAR

We've all seen the movie. We all know the myth. But with the centenary of the Arab Revolt coming up this year, *MHM* takes a sideways look at the campaign, focusing on the other British officers involved, the technology of the desert war, and what some regard as the birth of modern special forces.

ALSO NEXT ISSUE:

- *Sadowa, 1866: battle for the soul of Germany*
- *Flame weapons: Part 2 – from 1900 to 1945*
- *Regiment: The Connaught Rangers at Cuidad Rodrigo, 1812*

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CENTENARY SEASON

CENTENARY SEASON CONTINUES WITH A PROMOTION OF SPECIALIST MILITARY HISTORY EVENTS TO KEEP THE HISTORY ENTHUSIAST BUSY.

WALK

FRONTLINE WALK

The Frontline Walk is a 100km walk completed in three days. Not a challenge for the faint-hearted, it will push you physically and mentally as you march along the Western Front. Starting at Lochnagar Crater and ending at the Menin Gate with the Ceremony of the Last Post, the Frontline Walk is a tough but poignant event, with memories that will last you a lifetime.

The top three fundraisers will have the opportunity to lay a wreath at the Menin Gate, a once-in-a-lifetime chance to take part in the moving final salute to the fallen.

The Walk takes place 100 years on from the Battle of the Somme, one of the largest battles of the First World War, which resulted in the death of more than a million Commonwealth, French, and German soldiers.

TEL: 0207 811 3960
EMAIL: events@soldierscharity.org
WEB: ***www.soldierscharity.org/frontlinewalk***

DATES/OPENING TIMES: 5-9 October 2016
WHERE: Meeting at Wellington Barracks, Birdcage Walk, London, SW1E 6HQ. Travelling across France and Belgium to finish at the Menin Gate. Returning to Wellington Barracks.
HOW MUCH: £150 registration fee + £1,200 minimum fundraising target (with £550 due by 1 August 2016 to confirm a place on the walk).
Final deadline for fundraising is the end of December 2016.

EVENT

TRACKS TO THE TRENCHES 2016

Tracks to the Trenches is a major event marking the contribution that light railways made during the First World War. These railways played a crucial role in moving supplies and equipment to keep the frontline troops of all combatant countries operational.

Held at the Moseley Railway Trust's Apedale site, the event will feature steam trains (with rides) and demonstrations of War Department freight trains. There will be many living history displays, and various groups will interact with the facilities on site, including our replica Western Front trench.

This year, we are placing a special emphasis on the role that horses played in providing transport during the conflict. There will be a full range of supporting activities for all the family, including model railways, vintage vehicles, catering, and trade stands. And not forgetting a real ale bar!

TEL: 0845 094 1953
EMAIL: info@mrt.org.uk
WEB: ***www.ww1-event.org***

DATES/OPENING TIMES: 13, 14, and 15 May 2016. Friday 13 May 12.30pm-5.30pm. Saturday 14 and Sunday 15 May 10.30am-5.30pm.

WHERE: Apedale Valley Light Railway, Apedale Community Country Park, Loomer Road, Chesterton, Newcastle-under-Lyme, Staffordshire, ST5 7LB

HOW MUCH: Adults £9, Children £4, Family (2 adults, 2 children) £20. Advance ticket offer at website *www.ww1-event.org* (live until 1 May 2016).

EVENT

WWI FRENCH NARROW-GAUGE RAILWAY CENTENARY

The 'P'tit Train de la Haute Somme' ('Little Train of the Upper Somme') volunteers will celebrate the centenary of their narrow-gauge railway line during a big event in May. This line is the last remaining railway line of several hundreds of kilometres built in 1916 by French and English armies to supply the frontline during the Battle of the Somme.

Visiting WWI locomotives will come from England, Wales, and Germany to join the railway's historic locomotives and wagons. A model railways exhibition, historic displays, re-enactment WWI groups, and societies will take part in this four-day event. The narrow-gauge railway museum, the biggest in Europe, will also be open to help you to learn more about the history of those railways.

Open each day from 10am to 7pm. Take-away food available. See our website for train timetables.

Image Credit: APPEVA/David Blondin

TEL: +33 322 83 11 89
EMAIL: appeva@club-internet.fr

WEB: ***www.appeva.org***
DATES/OPENING TIMES: 5-8 May 2016

WHERE: Hameau de Froissy, La Neuville-lès-Bray, France, Somme department, 40km east of Amiens.

HOW MUCH: Adults €10.50, Children (aged 5-12), €7.00, free for children under five years old.

COMPETITIONS

PUT YOUR MILITARY HISTORY KNOWLEDGE TO THE TEST WITH THE *MHM* QUIZ, CROSSWORD, AND CAPTION COMPETITION

MHM QUIZ

This month, one lucky reader has the chance to win a pair of adult tickets to the newly transformed American Air Museum.

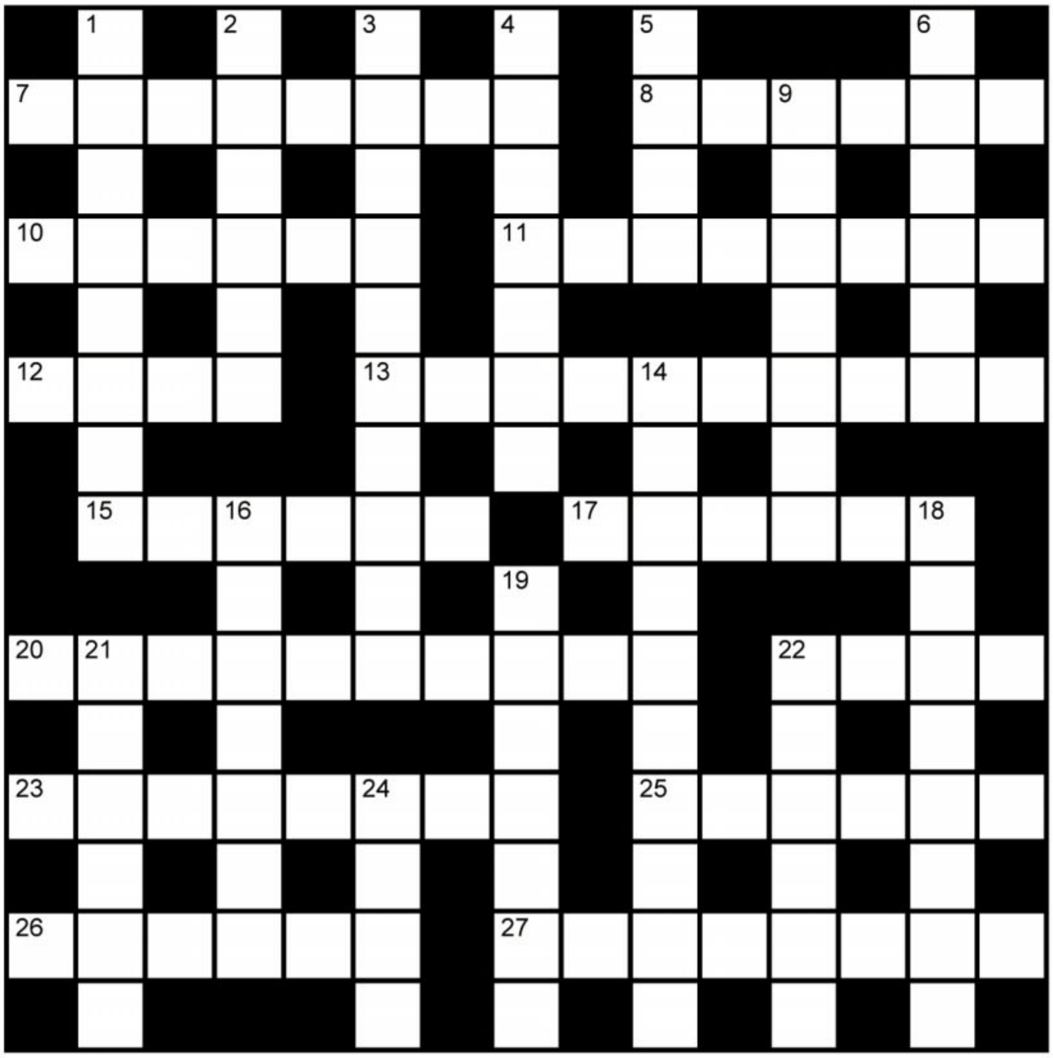
Home to 850 objects, the newly transformed American Air Museum at IWM Duxford explores the story of Anglo-American military collaboration in the 20th and 21st centuries. It focuses on the key role played by American air power in conflicts from 1918 to the present day, with dramatic displays of historic and contemporary aircraft.

The new museum invites visitors to explore the history of its 18 aircraft, while learning about the personal experiences of people linked with the aircraft and objects on display.

Highlights include the C-47 Skytrain transport aircraft, a veteran of D-Day, which dropped troops and supplies into occupied Europe, and the remarkable story of 'Duke' Boswell, who parachuted from one into action on 6 June 1944.

Taking in the immense B-52 Stratofortress on display, those with an interest in the history of the Cold War can watch Jack Revelle as he recalls his experience as a bomb-disposal officer during the Goldsboro incident, in which a B-52 armed with nuclear weapons crashed in North Carolina in 1961.

Other exhibits include equipment, uniforms, keepsakes, and photographs, many of which are on display for the very first time. Together with the aircraft, these items help tell the personal stories of those affected by British and American relations across almost a century of military flight.



MHM CROSSWORD

№ 68

ACROSS

7 Second World War flying boat built by Consolidated (8)

8 King of Wessex regarded as the founder of the English navy (6)

10 Victory for Hannibal in 216 BC (6)

11 Battle of 1746 which ended the Jacobite uprising (8)

12 Irish foot soldier (4)

13 Soldier armed with a combined spear and battleaxe (10)

15 Projectiles manufactured by a fletcher (6)

17 Pilotless craft used for surveillance or bombing (6)

20 Senior rank of the RAF (3,7)

22 British anti-tank weapon of WWII (4)

To be in with a chance of winning, simply answer the following question:

Answer online at *www.military-history.org*

The Bell UH-1 Iroquois military helicopter is better known by which name?

APRIL ISSUE | *MHM* 67

ANSWERS

ACROSS: 8 Yamamoto, **9** *Aguila*, **10** Tattoo, **11** Richmond, **12** Tiberius, **13** Tipton, **15** Modoc, **16** Omura, **21** Paulus, **23** Augustus, **24** *Hermione*, **26** Lionel, **27** Nimrod, **28** Grantham.

DOWN: 1 Saladin, **2** Hartlepool, **3** Borodino, **4** Forrest, **5** Mascot, **6** Guam, **7** Clinton, **14** Portsmouth, **17** Magellan, **18** Javelin, **19** Marengo, **20** Luce Bay, **22** Swords, **25** Mars.

23 Foot soldiers armed with javelins or similar weapons (8)

25 ___ Regiment, the only Army Reserve Regiment in the Guards Division (6)

26 General who commanded the US Third Army in Europe in 1944/1945 (6)

27 Rhodesian leader who served as an RAF fighter pilot in WWII (3,5)

DOWN

1 Battle of the Peninsular War (8)

2 Large piece of artillery often mounted on wheels (6)

3 Supreme commander of the Normandy Landings (10)

4 Scottish king who gained the throne after killing Macbeth in battle (7)

5 Armour made of metal rings or plates (4)

6 Paul ___, American patriot famous for riding to warn colonists of the British approach (6)

9 Defeat for the Scottish army in 1513 (7)

14 Actor who portrayed Custer in *They Died with Their Boots On* (1941) (5,5)

16 Defensive wall (7)

18 ___ Highlanders, British regiment active from 1881 to 1961 (8)

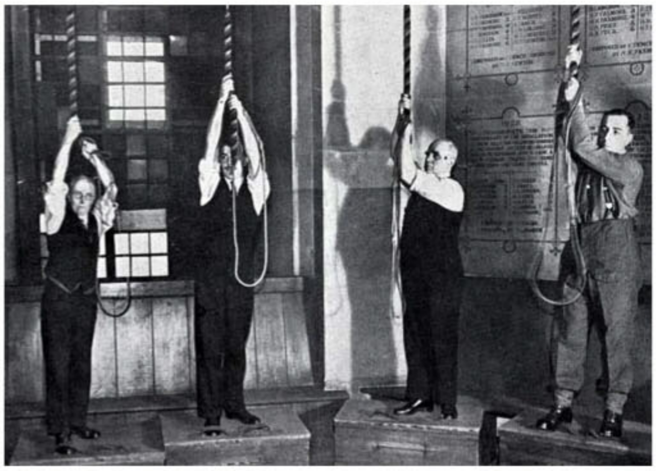
19 Member of troops led by Orde Wingate (7)

21 Site of a victory in 1944 for Anglo-Indian forces over the Japanese (6)

22 Country invaded by US forces in December 1989 (6)

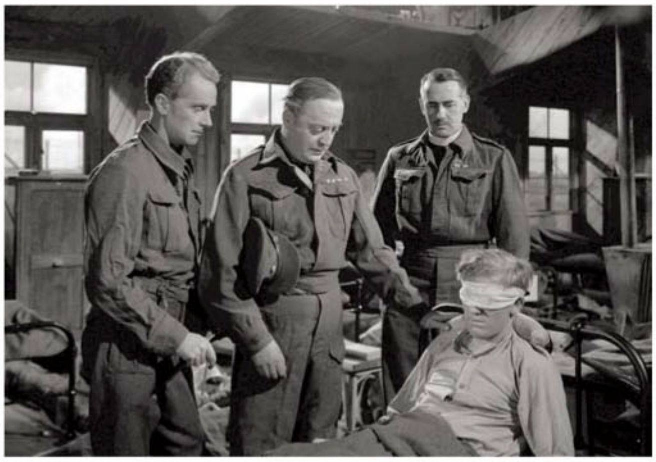
24 Battle of WWI fought in August 1914 (4)

MHM CAPTION COMPETITION



We continue our caption competition with an image from this month's 'War on Film'. Pit your wits against other readers at ***www.military-history.org/competitions***

LAST MONTH'S WINNER



WINNER:

'Look, we know you are keen to get back into action, but we feel your request to be a tank driver is a bit premature.'

Andrew J

RUNNERS-UP

'I say, didn't you think playing blind man's bluff in a minefield would be dangerous?'

Julie T

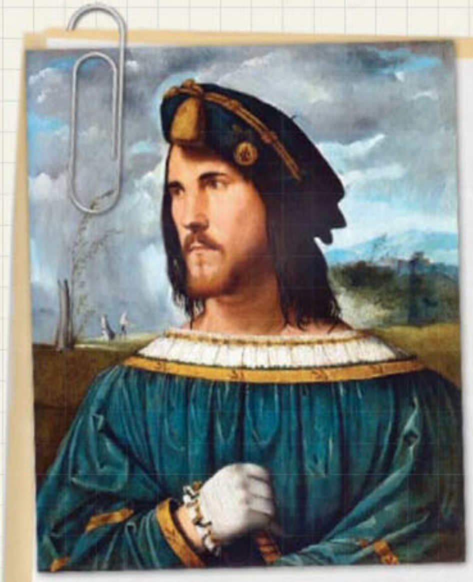
'There there old boy, chin up. Look on the bright side: at least you won't have to watch *Big Brother* or *X Factor* ever again.'

Tony

Think you can do better?

Go head-to-head with other *MHM* readers for the chance to see your caption printed in the next issue. Enter now at ***www.military-history.org/competitions***

ALL YOU NEED TO KNOW ABOUT... Cesare Borgia



CESARE BORGIA FACT FILE

Born: 1475

Nationality: Italian

Occupation(s): Gonfalonier and Captain-General of the Church (commander of the papal armies)

Key qualities: ruthlessness, opportunism, strategic thinking

Greatest achievement: increasing Borgia control in the Papal States

Died: 1507

CONFIDENTIAL

THAT NAME RINGS A BELL, BUT WHO WAS HE?

Cesare Borgia was a Renaissance Italian nobleman. He was the illegitimate son of Pope Alexander VI, and became a cardinal before renouncing his position to take up the sword as commander of the papal armies. His fearsome reputation preceded him: accusations of murder, rape, incest, and corruption abounded during his lifetime, and modern popular culture continues to depict Cesare as the personification of evil. Most famously, Cesare was the inspiration for Chapter 7 of Machiavelli's *The Prince*.

SO HOW DOES A CARDINAL BECOME A CONQUEROR?

Alexander was keen to re-establish control in the Papal States while advancing the interests of his family. He pinned his hopes of centralisation and expansion on Cesare's older brother, but when the latter was murdered in 1497, it fell to Cesare to realise his father's vision.

SUSPICIOUS... DID HE RISE TO THE OCCASION?

He did, but not on his own. With the ascension of King Louis XII of France, who was desperately seeking the Pope's permission to divorce, the Borgias saw another opportunity for family advancement. Louis launched Cesare's military career, appointing him to command of a corps of 100 *lances fournies*.

In 1499, Alexander requested French support to recover the Papal States. When this was granted, Cesare embarked on the first of three Romagna campaigns, which saw city after city surrender to his forces with little opposition between 1499 and 1500.

After a brief interlude, he launched a second, larger campaign in the Romagna. Personally commanding a force of 10,000 men, he oversaw another series of successes, keeping military action to a minimum by strategically targeting cities that were easy prey.

CUNNING. DIDN'T ANYONE STAND UP TO HIM?

Some tried, but Cesare was ruthless and formidable. In the winter of 1500/1501, Faenza was one of the few cities to put up a fight. But Cesare simply set up a blockade, before returning to bombard the starved town into submission.

It was Cesare's actions at Urbino during his third Romagna campaign (1502-1503) that brought him to the attention of Niccolò Machiavelli. Guildobaldo, Duke of Urbino, had granted the papal artillery passage through his lands. But turning on his ally, Cesare attacked Urbino and took it for himself, forcing Guildobaldo to flee.

Having interviewed Cesare at Urbino, Machiavelli wrote of him: 'This Lord is truly splendid and magnificent, and in war there is no enterprise so great that it does not appear small to him; in the pursuit of glory and lands he never rests nor recognises fatigue or danger.'

WELL THAT'S ONE WAY OF PUTTING IT! WAS HE REALLY SO INVINCIBLE?

After his third and final campaign, Cesare had conquered the entire Romagna region in the name of the papacy. But after his father's death in 1503, his luck began to run out. Pope Julius II seized the Romagna for himself, arresting Cesare and releasing him only once he had given up several of his cities.

Thus began the downfall of Cesare Borgia, the great conqueror who had once employed Leonardo da Vinci as a military architect. Dejected, Cesare travelled to Naples, but the local ruler did not trust him, and he was imprisoned in Spain in 1504. He escaped and made for Navarre in 1506, where he died fighting for his brother-in-law John III of Navarre against local rebels.

Cesare was as controversial in death as he was in life. In 2007, his body was finally reburied in consecrated ground in Viana in northern Spain, the sinner's remains having been ejected from the local church there in 1527.

Visit Hertford Museum

The Home of the Hertfordshire Regiment

SOME WHERE IN FRANCE

Discover the history of an astonishing territorial force, nicknamed the Herts Guards by professional soldiers during the First World War for their courage, discipline and temerity.

Wonderful objects, stories and personal audio accounts form part of Hertford Museum's permanent displays and reserve collections of equipment, uniform, records, oral histories and a wealth of photographs are available on advance request to researchers.

Hertford Museum is open Tuesday—Saturday, 10am –5pm. Admission Free!

Please see our websites for more information about the Hertfordshire Regiment or visiting the museum or email hertfordmuseum@btconnect.com

www.hertfordmuseum.org
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LET'S BATTLE

The Desert Rats' Cromwell

A vehicle made famous by the British 7th Armoured Division, who had been dubbed the Desert Rats for their exploits in North Africa. However, the 7th Armoured were not issued with Cromwells until 1944, when they returned to the U.K. to prepare for D-Day. They fought in their Cromwells across France and into Germany, and eventually took part in the Victory Parade on September 7, 1945, in Berlin.

Development for the Cromwell first began in 1940 when the General Staff knew the Crusader would soon become obsolete. The tank was the fastest British tank to serve in the war, with a top speed of 40 mph (64 km/h). Its dual purpose 75 mm main gun had HE and armour-piercing capabilities and its armour ranged from 8 mm up to 76 mm overall.

In World of Tanks, you can command the Cromwell from the driver's seat. World of Tanks is an online PC game dedicated to tank warfare in the mid-20th century, with over 300 of history's most iconic tanks.
A variety of tiers, upgrades, equipment, and decals allow you to make each tank, your progression and your gameplay experience unique.

Play For Free at Worldoftanks.eu

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